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Uses a type of service taxonomy developed by Berenson and Holahan in "Using a New Type-of-Service Classification System to Analyze Growth in Medicare Physician Expenditure, 1985-1988," PB91-??????. (3983-01) submitted 5-1-91 to NTIS)

16. Abstract (Limit: 200 words)

This study examines growth in Medicare physician services and allowed charges for eighteen Medicare specialties for CY 1985-1988, identifies the kinds of services that each specialty provides, and examines changes in services and allowed charges for each specialty over time. The specialties examined are general/family practice, internal medicine, cardiology, gastroenterology, psychiatry, other medical specialties, general surgery, ophthalmology, orthopedics, thoracic surgery, urology, dermatology, other surgical specialties, multi-specialty clinics, radiology, pathology and laboratory, and non-physicians. Detailed tables provide information on individual services by CPT4 or HCPCS code, that accounted for at least 1.5 percent of all Medicare allowed charges for that specialty in any year between 1985 and 1988. Only national totals and shares are reported for anesthesiology. Allowed charges for all physicians increased by 12.2 percent per year but this increase is not uniformly distributed across specialties. There was ample evidence of upcoding between 1985 and 1988 but the major growth in Medicare spending is in large part attributed to specialties with access to or control of new technologies. The authors conclude that although specialties could serve as the focus of Medicare volume performance standards in principle, a number of serious problems remain for subnational standards along specialty lines.

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The Growth in Medicare Physician Services By Specialty: Implications for Volume Performance Standards

John Holahan
Robert Berenson, M.D.

Federal Project Officer: Sherry Terrell

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Introduction

In the Omnibus Budget Reconciliation Act of 1989 (OBRA 1989), Congress enacted legislation that will dramatically change how physicians are reimbursed under Medicare.[1] Part of the reform package includes the adoption of a resource-based relative value scale, together with some limits on physicians' ability to charge patients in excess of the new fee schedule. An additional key element of the reform package was the enactment of a policy of Medicare volume performance standards (MVPS). In essence, target rates of growth for physician services are established. If the actual volume of services as measured by Medicare physician expenditures increases at a faster rate than the target, then future updates for physician fees will be reduced below the rate of increase that otherwise would have occurred. Thus, the MVPS are rates of increase and not limits on expenditures.

Initially, the volume performance standards have been set at the national level.[2] The Congress also required the Secretary of Health and Human Services to study approaches for providing for volume performance standards at a subnational level. Consideration was to be given to smaller geographic units as well as the feasibility of enacting standards on a type-of-service or specialty-specific basis. The problem is that volume performance standards established at the national level provide very weak incentives for physicians to modify behavior. In contrast, volume performance standards that apply at a smaller, more localized geographic area, and perhaps by type-of-service or

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1. OBRA 1989 (PL101-239) Part 2 provisions relating to Part B, Subpart A, General Provisions, Section 6102(a) Physician Payment Reforms amends the Social Security Act by adding new Section 1848 - Payment for Physician Services.

2. The MVPS for FY 1990 is 9.1 percent for all physician services. The MVPS rate of increase for FY 1991 is 7.3 percent for all services, 3.3 percent for surgical services and 8.6 percent for medical services. See Federal Register 54(249) 53819-5381 and 55(250) 53356-53360. Federal FY is October 1 to September 31.

specialty, theoretically would affect physicians more directly and therefore provide stronger incentives to respond to the targets.

Volume performance standards at the specialty level, at least for some specialties, would take advantage of existing institutional arrangements. Specialty societies have existed at the state or local level for many years and could evolve into organizations that could respond to incentives. For example, HCFA could provide specialty societies with information on provision patterns of area physicians in the specialty. If the volume of services provided by physicians in this specialty exceeded the target, and all physicians in the specialty therefore received lower or no fee updates in a subsequent year, the organization would have strong incentives to use this information to identify outliers and apply peer pressure to those physicians responsible for the reductions in fees. Specialties are appropriate for this purpose because there is reasonable homogeneity within specialties in the types of services they provide, and for many specialties there are no close service substitutes. Specialty societies could develop guidelines of appropriate practice patterns and use these guidelines to standardize practice and perhaps reduce volume. There are also a number of serious problems with specialty-specific targets, which we discuss in the concluding section.

This paper examines growth in Medicare physician services and allowed charges by specialty for CY 1985-1988, identifies the kinds of services that each specialty provides, and examines changes in services and allowed charges for each. The paper relies on a new type of service taxonomy to organize services that physicians in each specialty perform. This type-of-service classification system was developed by the co-authors together with a [small] group of physician consultants for the purpose of analyzing the growth of

physician services in Medicare.[3] The system organizes physician services into 20 categories as seen in Table 1. The first group is evaluation and management (E & M) services.[4] These consist of office visits, hospital visits, emergency room services, nursing home and home visits, consultations, and a final category, specialty-specific evaluation and management services. The latter consists of specialty-specific evaluation and management procedure codes that are throughout the Current Procedure Terminology-4 (CPT-4) system. Specialty specific E/M services consist largely of services provided by ophthalmologists, psychiatrists, and pathologists, but include a wide range of other evaluation and management services.

The second major class of services is procedures. Procedures are divided into major and ambulatory. The three major categories are cardiovascular, orthopedic, and general. Ambulatory procedures include eye procedures, other surgical procedures, endoscopies, oncology procedures, and dialysis. Imaging procedures are divided into four categories: standard imaging, which includes routine x-rays and nuclear medicine; advanced imaging, which is comprised of CT scans and magnetic resonance imaging; sonographic imaging; and imaging with a significant procedure, consisting largely of cardiac catheterizations. The final category is tests, which are divided into laboratory tests and other tests; the latter principally includes cardiovascular tests.

The body of this paper describes the growth for each of the major Medicare providing specialties using this type of service system. (Anesthesiology is

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3. Robert Berenson and John Holahan, "Using a New Type-of-Service Classification System to Analyze the Growth in Medicare Physician Expenditures, 1985-1988," Urban Institute Working Paper 3983-01.

4. The Berenson-Holahan type-of-service classification system defines E & M services from a clinical perspective. The Medicare payment definition of evaluation and management services is a more limited subset of services consisting of CPT-4 code ranges 90200-90292, 90600-90654, 90699, 90750-90764, 90801-90862, 99062-99065, and 99160-99174.

Table 1

Type of Service Classification System
(Numbers of Procedure Codes, Allowed Charges, 1988,
and Annual Growth Rates, 1985-1988)

	HCPCS Codes	Allowed Charges (in millions)	% of All Allowed Charges
Evaluation and Management Services (M)			
Office Visits	54	$3,151.7	11.64%
Hospital Visits	39	3,105.5	11.47%
Emergency Room Services	21	327.9	1.21%
Nursing Home and Home	94	364.3	1.35%
Specialty Specific Eval. & Mgmt. Serv.	221	1,254.0	4.63%
Consultations	21	929.2	3.43%
Procedures (P)			
Major Procedures			
Cardiovascular	474	1,475.6	5.45%
Orthopedic	647	853.4	3.15%
Other	1400	1,609.3	5.94%
Ambulatory Procedures			
Eye	208	2,386.7	8.82%
Other	1270	942.5	3.48%
Minor Procedures	992	821.2	3.03%
Oncology Services	171	454.8	1.68%
Endoscopy Procedures	380	1,228.8	4.54%
Dialysis Services	53	233.7	0.86%
Imaging Procedures (I)			
Standard Imaging	1001	1,582.9	5.85%
Advanced Imaging	141	715.0	2.64%
Sonography	96	689.9	2.55%
Imaging/Procedure	259	512.0	1.89%
Tests (T)			
Lab Tests	1510	1,425.8	5.27%
Other Tests	524	1,188.7	4.39%
Anesthesiology (A)		1,126.7	4.16%
Other (O)			
A-V HCPCS Codes (except M,P,R)		468.8	1.73%
W-Z Local Codes		66.9	0.25%
Other Unassigned		159.5	0.59%
	9,576	$27,074.8	100.00%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

not included because it is outside the scope of this study.) Detailed tables are provided in the appendix which provide information on individual services that accounted for at least 1.5 percent of all Medicare allowed charges for that specialty in any year between 1985 and 1988. (Allowed charges represents the amount that Medicare recognizes for payment purposes; it includes the Medicare reimbursement amount as well as deductibles and coinsurance which must be paid by beneficiaries.)

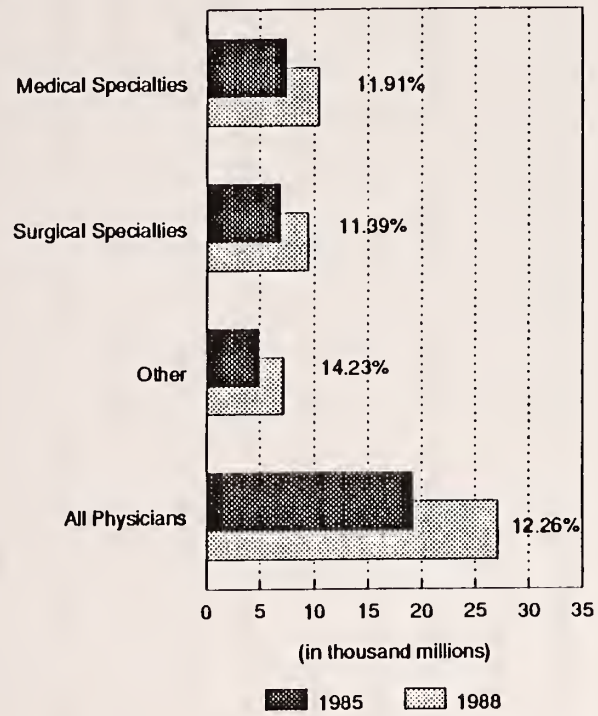
Figure 1 provides an overview of the growth in allowed charges for Medicare physician service by specialty. The figure provides a useful summary of the information that will be provided in the rest of this paper. Allowed charges for all physicians increased by 12.2 percent per year. The number of enrollees increased by about 2 percent. Medicare reimbursement rates increased by 4 to 4.5 percent per year. Thus, annual growth in excess of, say, 7 percent is for the most part attributable to the growth in the volume and intensity of physician services. (More precise measurement of growth in volume and intensity will be conducted in another part of this project.)

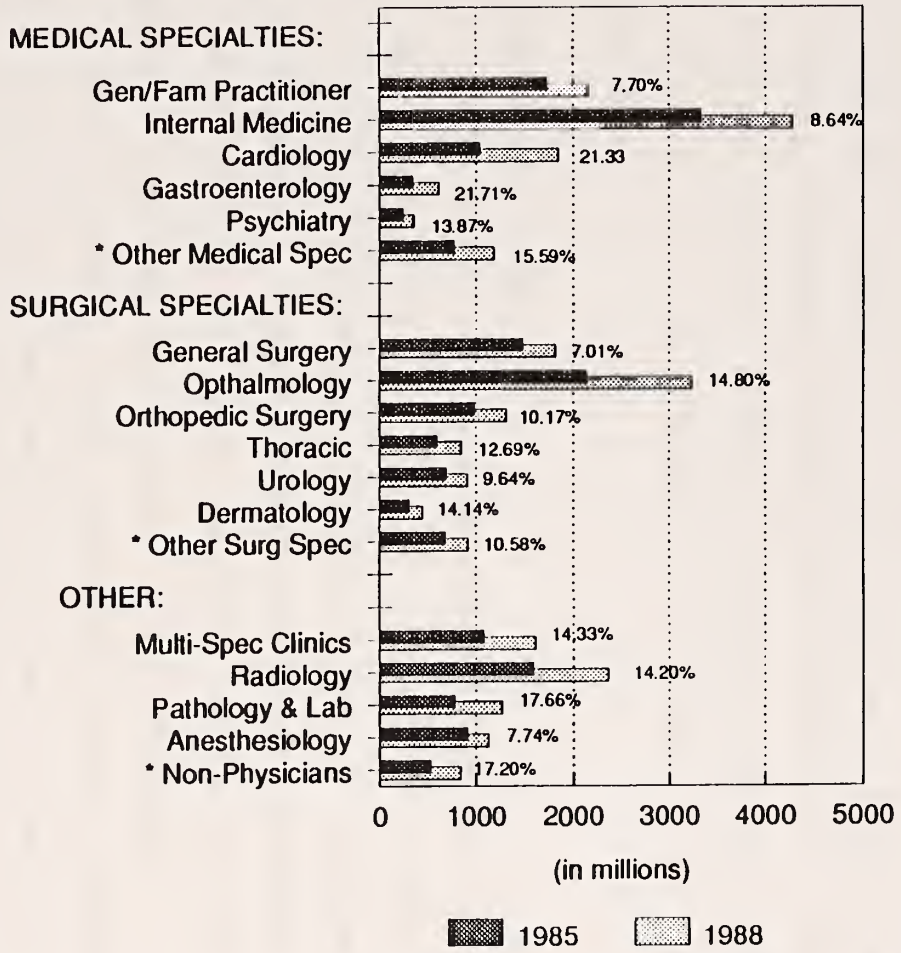
Figure 1 reveals that the growth in Medicare allowed charges is not evenly distributed across specialties. General and family practitioners and internal medicine specialists have had very little nominal growth in allowed charges. These two groups of physicians provide for over half of all the Medicare payments to medical specialists. Other medical specialists, such as cardiologists and gastroenterologists, have had much higher rates of growth.

Allowed charges by all surgical specialties increased by 11.8 percent. However, general surgeons barely grew at the rate of the increase in enrollment and reimbursement rates. Other surgical specialists had considerably higher rates of increase. For example, ophthalmologists, who are the second-ranking

Figure 1
Medicare Physician Services -- Allowed Charge, by Specialty
1985, 1988

Percentages represent average annual change, 1985-1988





* Note: Other medical specialties include neurologists, allergists, physicial and rehabilitative medicine, nephrologists, pediatrics and geriatrics.
Other surgical specialties include otolaryngologists, neurosurgeons, obstetricians, gynecologists, plastic surgeons, hand surgeons and proctologists. Non-physicians consist of chiropractors, optometrists, podiatrists, oral surgeons and portable x-ray suppliers.

Source: Tabulation from the 1985 and 1988 BMAD procedure files.

specialty in terms of absolute dollars, had rates of increase in allowed charges of 14.8 percent per year. Radiology, reflecting the numerous advances in sophisticated imaging technology, had annual increases in allowed charges of 14.2 percent. Finally, there was an average annual increase of 17.7 percent in pathology and laboratory services, reflecting increases in surgical pathology and selected laboratory tests. The remainder of this paper examines each specialty in more detail.

General and Family Practitioners

Family and general practitioners have been increasingly limiting their practice to primary care services. In the past, in many parts of the country, particularly in rural areas, general practitioners frequently performed surgery and provided obstetrical care. Table 2 reveals that general and family practitioners had $2.2 billion in allowed charges from Medicare in 1988, with less than 5 percent represented by procedures. General and family practitioners clearly contributed little to the overall growth in Medicare spending between 1985 and 1988. The number of services increased by only 3.1 percent and allowed charges by 7.7 percent per year, barely more than the growth in enrollment and reimbursement rates. Most Medicare revenues of general and family practitioners come from office and hospital visits and other evaluation and management services. There was very little growth in these services during this period. There was a decline in the number of hospital visits and a small increase in allowed charges. The fastest growing type of service for family and general practitioners was emergency room care, which grew at annual rates of 23.1 percent per year during this period. However, the more detailed procedure-level data provided in Table A.2 in the appendix, suggests evidence of upcoding, that is, increasing use of higher paying codes by family and general practitioners. As we will see, this is also true of

Table 2
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Family/General Practice

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	33,150.9	35,618.1	34.97%	2.42%	586.1	748.2	34.68%	8.48%
M2	HOSPITAL VISITS	18,175.2	15,748.0	15.46%	-4.67%	452.7	481.7	22.33%	2.09%
M3	EMERGENCY ROOM SERVICES	2,584.7	3,801.5	3.73%	13.72%	72.9	135.9	6.30%	23.07%
M4	NON-HOSPITAL, NON-SPECIALIST VISITS	5,369.4	5,989.4	5.88%	3.71%	109.3	138.8	6.43%	8.30%
P1	MAJOR PROCEDURES - OTHER	67.3	65.3	0.06%	-1.03%	33.7	32.4	1.50%	-1.36%
P2	AMBULATORY PROCEDURES - OTHER	308.1	326.7	0.32%	1.97%	30.5	34.5	1.60%	4.11%
P3	MINOR PROCEDURES	3,113.9	3,764.5	3.70%	6.53%	56.5	77.8	3.60%	11.25%
I1	STANDARD IMAGING	2,038.1	2,262.9	2.22%	3.55%	62.1	79.8	3.70%	8.69%
T1	LABORATORY TESTS	16,160.0	24,105.1	23.66%	14.26%	99.1	156.0	7.23%	16.33%
T2	OTHER TESTS	2,816.1	3,432.9	3.37%	6.82%	85.4	124.7	5.78%	13.44%
	OTHER FAMILY/GENERAL SERVICES	9,095.0	6,751.9	6.63%	-9.45%	138.5	147.8	6.85%	2.19%
	ALL FAMILY/GENERAL SERVICES	92,878.8	101,866.3	100.00%	3.13%	1,726.9	2,157.5	100.00%	7.70%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Note: The decline in the residual "other" services category is almost entirely due to reductions in the exceptions/unclassified categorry and in the use of local codes.

other physician specialties. The other particularly important type of service for family and general practitioners is laboratory tests. Laboratory tests comprise 23.7 percent of the services provided by family and general practitioners and accounted for 7.2 percent of allowed charges. The number of laboratory tests increased by 14.3 percent per year and allowed charges by 16.3 percent during this period. Other tests, such as electrocardiograms, were also important, accounting for 5.8 percent of allowed charges; allowed charges for other tests grew by 13.4 percent per year between 1985 and 1988.

Internal Medicine

Internal medicine specialists had $4.3 billion in allowed charges in 1988, the highest of any physician specialty (Table 3). However, the growth in their allowed charges was relatively slow by comparison with other than GP/FP physicians. The types of services provided by internal medicine bear considerable similarity to that of general and family practitioners. All but three of the top sixteen services provided by internists were evaluation and management services (Table A.3); the exceptions were two electrocardiogram codes and chest x-ray. Not surprisingly, hospital visits are relatively more important (than for general and family practitioners) in terms of services, and clearly more dominant in terms of allowed charges, than are office visits. Also, for internists, consultations account for 5.9 percent of allowed charges, and endoscopies 5.8 percent. As with general and family practitioners, laboratory tests are an important source of revenue accounting for 24.7 percent of services and 6.0 percent of allowed charges. Finally, other tests account for 8.4 percent of allowed charges.

While office and hospital visits account for more than half of internists' revenues, they have been growing at very slow rates. The number of office visits increased by 5.3 percent; hospital visits by less than 1 percent.

Table 3
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Internal Medicine

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	32,193.9	37,599.4	25.39%	5.31%	781.0	1,060.8	24.83%	10.75%
M2	HOSPITAL VISITS	36,160.8	36,880.3	24.90%	0.66%	1,119.5	1,318.0	30.85%	5.59%
M4	NON-HOSPITAL, NON-SPECIALIST VISITS	3,131.4	4,230.7	2.86%	10.55%	88.6	127.9	2.99%	13.02%
M6	CONSULTATIONS	2,778.1	3,289.8	2.22%	5.80%	188.6	251.3	5.88%	10.03%
P6	ENDOSCOPY PROCEDURES	906.3	1,041.4	0.70%	4.74%	172.4	246.2	5.76%	12.62%
I1	STANDARD IMAGING	2,452.5	2,653.0	1.79%	2.65%	87.4	108.4	2.54%	7.43%
I3	SONOGRAPHY	431.0	686.2	0.46%	16.77%	42.3	80.4	1.88%	23.90%
T1	LABORATORY TESTS	23,775.9	36,580.9	24.70%	15.44%	159.8	254.6	5.96%	16.78%
T2	OTHER TESTS	10,452.7	11,884.9	8.02%	4.37%	275.0	359.4	8.41%	9.34%
	OTHER INTERNAL MEDICINE SERVICES	17,617.4	13,252.3	8.95%	-9.05%	418.0	465.8	10.90%	3.67%
	ALL INTERNAL MEDICINE SERVICES	129,899.9	148,098.9	100.00%	4.47%	3,332.6	4,272.8	100.00%	8.64%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Note: The decline in the residual "other" services category is almost entirely due to reductions in the exceptions/unclassified category and in the use of local codes.

Table A.3 also indicates evidence of upcoding, the increasing use of higher procedure codes among internists. The allowed charges for most types of services provided by internists did not increase at particularly rapid rates. The exceptions are endoscopies, which increased by 12.6 percent, and sonographic imaging procedures, which increased by 23.9 percent (although accounting for only 1.9 percent of revenue).

Cardiology

Cardiology, as mentioned earlier, is one of the fastest growing specialties in Medicare, with allowed charges increasing at annual rates of 21.3 percent (Table 4). Allowed charges for cardiologists amounted to $1.8 billion in 1988, making cardiology the fourth highest in terms of Medicare payments. Office and hospital visits together comprise about 43 percent of all services provided by cardiologists. Other tests comprise another 32.2 percent of services. However, distribution of charges is very different. Hospital visits account for 20.6 percent of allowed charges. Cardiovascular procedures accounted for 15.3 percent of cardiologists' allowed charges, much attributable to coronary angioplasty. Sonographic imaging, e.g., echocardiography, accounted for 10.4 percent. Imaging/procedures, primarily cardiac catheterizations, accounted for 13.9 percent. Other tests--electrocardiograph monitoring and other cardiovascular tests--accounted for 17.8 percent.

Allowed charges for all of these types of services have increased at double-digit rates. Allowed charges for office and hospital visits increased at 17 and 15 percent, respectively. Cardiovascular procedures, again primarily due to the growth in coronary angioplasty, increased at 21.9 percent. Sonographic imaging increased at 38.2 percent. Imaging/procedures increased by 29.7 percent and other tests by 21.5 percent.

Table 4
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Cardiology

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	4,061.3	5,663.8	16.52%	11.72%	111.9	179.1	9.70%	16.99%
M2	HOSPITAL VISITS	7,233.3	9,209.2	26.87%	8.38%	250.7	380.9	20.62%	14.96%
M6	CONSULTATIONS	970.4	1,297.2	3.78%	10.16%	73.0	113.0	6.11%	15.67%
P1C	CARDIOVASCULAR	305.3	386.7	1.13%	8.20%	156.1	282.5	15.30%	21.87%
I1	STANDARD IMAGING	364.8	511.0	1.49%	11.89%	17.0	40.6	2.20%	33.65%
I3	SONOGRAPHY	793.8	1,696.8	4.95%	28.82%	73.1	192.9	10.44%	38.19%
I4	IMAGING/PROCEDURES	233.1	408.8	1.19%	20.59%	117.5	256.1	13.86%	29.66%
T2	OTHER TESTS	7,705.6	11,033.1	32.19%	12.71%	183.3	328.9	17.80%	21.51%
	OTHER CARDIOLOGY SERVICES	2,603.6	4,071.1	11.88%	16.07%	51.8	73.4	3.97%	12.32%
	ALL CARDIOLOGY SERVICES	24,271.3	34,277.8	100.00%	12.19%	1,034.3	1,847.3	100.00%	21.33%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Gastroenterology

Gastroenterology is the fastest growing specialty in Medicare, with allowed charges amounting to $608.8 million in 1988 (Table 5). The growth in allowed charges for gastroenterologists averaged 21.7 percent between 1985 and 1988. Most of this growth is accounted for by the increasing availability of fiber-optic procedures. Even though gastroenterology is a medical specialty, most of the revenues by this specialty come from procedures. Endoscopies account for 65.9 percent of all allowed charges, whereas gastroenterologists received only 12.4 percent of their revenues from hospital visits and another 8.4 percent from consultations, much lower than for other medical specialists. The growth in allowed charges from endoscopies for gastroenterologists was 25.6 percent per year. The large increases were consistent across several gastroenterological procedures, i.e., upper GI endoscopies, colonoscopies, and sigmoidoscopies.

Psychiatry

Psychiatrists had $350.4 million in allowed charges in 1988 (Table 6). Allowed charges for psychiatrists increased at almost 14 percent per year. Most of the revenues of psychiatrists came from specialist evaluation and management services, that is, psychotherapy and psychiatric diagnostic exams. Specialist evaluation and management services accounted for 64.4 percent of psychiatrists' services and 62.2 percent of allowed charges. These services increased by 7.6 percent per year, while allowed charges increased by 14.4 percent. Psychiatrists also had increases in allowed charges for hospital visits and consultations of more than 13.0 percent per year. The more rapid increase in allowed charges relative to growth rates for services reflects increases in average charges; there was less evidence of upcoding than for

Table 5
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Gastroenterology

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	964.2	1,369.5	20.45%	12.41%	28.1	44.6	7.33%	16.69%
M2	HOSPITAL VISITS	1,666.0	2,162.5	32.29%	9.08%	52.2	75.6	12.41%	13.12%
M6	CONSULTATIONS	395.3	606.5	9.06%	15.34%	29.9	50.8	8.35%	19.31%
P6	ENDOSCOPY PROCEDURES	671.2	1,129.3	16.86%	18.94%	202.3	401.0	65.86%	25.61%
	OTHER GASTROENTEROLOGY SERVICES	1,057.8	1,429.9	21.35%	10.57%	25.1	36.8	6.05%	13.65%
	ALL GASTROENTEROLOGY SERVICES	4,754.6	6,697.7	100.00%	12.10%	337.6	608.8	100.00%	21.71%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Table 6
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Psychiatry

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	320.3	316.0	3.69%	-0.45%	7.2	8.7	2.48%	6.45%
M2	HOSPITAL VISITS	1,421.5	1,677.0	19.57%	5.66%	51.0	74.9	21.39%	13.71%
M5	SPECIALIST EVALUATION & MANAGEMENT SERVICES	4,422.3	5,514.7	64.35%	7.64%	145.7	217.8	62.17%	14.36%
M6	CONSULTATIONS	197.5	245.0	2.86%	7.44%	14.4	21.0	5.99%	13.27%
P1	MAJOR PROCEDURES - OTHER	87.3	89.9	1.05%	0.98%	5.5	6.2	1.78%	4.36%
	OTHER PSYCHIATRY SERVICES	588.4	726.8	8.48%	7.29%	13.6	21.7	6.20%	16.94%
	ALL PSYCHIATRY SERVICES	7,037.4	8,569.3	100.00%	6.79%	237.3	350.4	100.00%	13.87%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

other specialties.[5] The faster than average annual growth rate in allowed charges for psychiatry could be attributable to the increase in the diagnoses of Alzheimer's disease, depression, and other psychiatric problems of the elderly.

Other Medical Specialists

Other medical specialists had $1.2 billion in allowed charges in 1988 (Table 7); 32.3 percent of allowed charges for other specialists came from hospital visits and another 14.8 percent from consultations. This is not surprising since other medical specialists including endocrinologists, neurologists, oncologists, and nephrologists tend to deal with sicker patients who are frequently hospitalized. As with other medical specialists, there is also evidence of upcoding in the office and hospital visit categories. Finally, other tests accounted for 9.7 percent of revenues of other medical specialists; for this group, other tests include electroencephalograms and nerve conduction studies.

Allowed charges of other medical specialists grew by 15.6 percent. All the major service categories for other medical specialists increased at double-digit rates. Allowed charges for office visits increased at annual rates of 17.5 percent; consultations grew by 14.5 percent and hospital visits by 15.0 percent. Other tests increased by 22.9 percent. Allowed charges for dialysis procedures grew by 21.2 percent; much of this may be due to use of local codes or underreporting in the earlier years.

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5. In addition, the HCFA special charge limit on outpatient mental health services has been permitted to increase from 50 percent of allowed charges over this same time period. The latter could account for the faster increase in charges relative to services.

Table 7
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Other Medical Specialty

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	3,218.5	4,467.2	15.16%	11.55%	84.6	137.3	11.60%	17.49%
M2	HOSPITAL VISITS	7,816.5	10,066.3	34.16%	8.80%	251.4	381.9	32.28%	14.95%
M5	SPECIALIST EVALUATION & MANAGEMENT SERVICES	785.6	1,465.0	4.97%	23.09%	13.3	27.5	2.32%	27.54%
M6	CONSULTATIONS	1,538.8	2,020.5	6.86%	9.50%	116.9	175.4	14.83%	14.48%
P3	MINOR PROCEDURES	676.3	1,016.8	3.45%	14.56%	22.7	37.3	3.15%	17.97%
P6	ENDOSCOPY PROCEDURES	95.8	125.9	0.43%	9.51%	25.9	39.3	3.32%	14.92%
P7	DIALYSIS SERVICES	2,771.7	2,208.4	7.50%	-7.29%	83.7	149.1	12.61%	21.22%
T2	OTHER TESTS	2,361.3	4,127.5	14.01%	20.46%	62.0	115.0	9.73%	22.91%
	OTHER MEDICAL SPECIALTY SERVICES-other	3,845.2	3,966.8	13.46%	1.04%	105.4	120.1	10.15%	4.44%
	ALL MEDICAL SERVICES SPECIALTY-other	23,109.7	29,464.5	100.00%	8.43%	765.9	1,182.9	100.00%	15.59%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Note: Other medical specialties includes neurologists, allergists, physical and rehabilitative medicine, nephrologists, pediatrics and geriatrics.

General Surgery

General surgeons accounted for $1.8 billion in Medicare allowed charges in 1988 (Table 8). However, they had the lowest rate of growth of allowed charges of any specialty. More than 50 percent of services provided by general surgeons are evaluation and management services, though allowed charges are considerably less. Approximately 35 percent of allowed charges of general surgeons are for major procedures/other. Another 19.4 percent comes from cardiovascular surgery. General surgeons have significant amounts of billings for thromboendarterectomies, coronary artery bypass grafts, and aneurism repairs; this suggests that at least in some areas of the nation, cardiovasuclar surgeons are grouped with general surgeons. Finally, 13.2 percent comes from ambulatory procedures/other.

None of the E/M or various procedure categories have grown at particularly rapid rates except for endoscopic procedures. The number of office visits has increased by only 1.1 percent per year, while hospital visits declined by almost 6 percent per year. Allowed charges for office visits grew by only 7.5 percent and hospital visits by 0.6 percent per year. General surgeons, however, are increasingly performing endoscopy procedures. Allowed charges for endoscopies performed by general surgeons increased at average annual rates of 14.5 percent. Among individual procedures, the number of mastectomies increased by 11.4 percent and allowed charges for mastectomies grew by 14.5 percent. This most likely reflects increased diagnoses of breast cancer. Most other major procedures performed by general surgeons (e.g., cholecystectomies, hernia repairs, and colectomies) did not experience significant growth. Vascular surgeons are included under general surgery; thus, thromboendartorectomy and aneurism repair are important procedures for general surgeons. In some

Table 8
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
General Surgery

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	4,853.5	5009.1	31.86%	1.06%	95.6	118.7	6.54%	7.48%
M2	HOSPITAL VISITS	3,457.2	2892.1	18.40%	-5.78%	91.7	93.2	5.13%	0.54%
M6	CONSULTATIONS	766.9	933.4	5.94%	6.77%	46.3	64.7	3.56%	11.80%
P1	MAJOR PROCEDURES - OTHER	620.7	685.2	4.36%	3.35%	528.5	635.1	34.97%	6.32%
P1C	CARDIOVASCULAR	297.4	366.7	2.33%	7.23%	277.4	351.9	19.38%	8.25%
P1M	ORTHOPEDIC	49.5	48.8	0.31%	-0.48%	38.4	42.2	2.32%	3.20%
P2	AMBULATORY PROCEDURES - OTHER	767.0	884.7	5.63%	4.87%	185.8	240.3	13.23%	8.95%
P3	MINOR PROCEDURES	729.4	806.5	5.13%	3.41%	27.5	32.2	1.77%	5.40%
P6	ENDOSCOPY PROCEDURES	464.9	509.5	3.24%	3.10%	78.5	118.0	6.50%	14.55%
	OTHER GENERAL SURGERY SERVICES	3,460.1	3,585.4	22.81%	1.19%	112.3	119.8	6.60%	2.18%
	ALL GENERAL SURGERY SERVICES	15,466.7	15721.4	100.00%	0.55%	1,482.0	1,816.1	100.00%	7.01%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

markets, these procedures are done by general surgeons, and elsewhere by vascular surgeons. These procedures tended to decline in importance.

Ophthalmology

Ophthalmologists accounted for $3.2 billion of Medicare allowed charges in 1988, or about 15 percent of the total physician allowed charges (Table 9). Almost 75 percent of the services provided by ophthalmologists were evaluation and management services--either office visits or specialist evaluation and management services. However, 71.5 percent of ophthalmologists' allowed charges came from ambulatory procedures/eye; only 16.3 percent of allowed charges came from specialist evaluation and management services. Not only are ophthalmologists the second most important specialty in Medicare, in terms of absolute dollars, they are also one of the fastest growing, with allowed charges increasing by 14.8 percent. This growth is in spite of the various reductions in fees for overpriced procedures in 1988, limits on interocular lens charges that can be passed through (effective July 1988), and limits on A-mode ophthalmic service fees (effective April 1988). The number of allowed charges for specialist evaluation and management services increased at 56.0 and 22.3 percent per year, respectively. These consist of ophthalmological exams and diagnostic evaluations; the growth in these services is considerably faster than the growth in ophthalmological surgery. Allowed charges for eye surgery increased at 16.8 percent per year.

The most dominant procedure in all of Medicare is the extracapsular cataract removal with insertion of lens. This accounted for 46.5 percent of all allowed charges for ophthalmologists and grew at annual rates of 29.2 percent. In part, this replaced alternative cataract removal procedures, but the overall growth nonetheless was still extraordinary. Other ophthalmological surgery procedures, e.g., trabeculoplasty and discission of secondary

Table 9
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Ophthalmalogy

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	4,060.8	4,571.1	19.75%	4.02%	90.6	115.7	3.58%	8.51%
M5	SPECIALIST EVALUATION & MANAGEMENT SERVICES	8,228.5	12,956.9	55.98%	16.34%	284.3	527.5	16.30%	22.88%
P2E	AMBULATORY PROCEDURES - EYE	1,137.9	2,030.1	8.77%	21.29%	1,451.7	2,314.1	71.52%	16.81%
I3	SONOGRAPHY	718.2	1,086.2	4.69%	14.78%	90.0	111.8	3.45%	7.50%
	OTHER OPHTHALMOLOGY SERVICES	2,601.3	2,501.9	10.81%	-1.29%	222.1	166.4	5.14%	-9.17%
	ALL OPHTHALMOLOGY SERVICES	16,746.6	23,146.1	100.00%	11.39%	2,138.6	3,235.4	100.00%	14.80%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Note: The decline in the residual category was primarily due to a decline in use of local codes.

membraneous cataracts, both also increased very rapidly during this period. The latter (CPT code 66831) reflects a new technique using laser surgery to remove the secondary membraneous cataract; by 1988 it had almost completely replaced the incisional procedure (CPT code 66830).

Orthopedic Surgery

Orthopedic surgeons accounted for $1.3 billion in Medicare allowed charges, the third-ranking surgical specialty in absolute Medicare dollars (Table 10). Orthopedic surgeons receive 55.5 percent of Medicare revenue from major orthopedic procedures. Another 8.5 percent of revenue is derived from ambulatory procedures. Office visits (8.9 percent) and standard imaging (8.4 percent) were also important. The fastest growing type of service was fiberoptic procedures (30.1 percent), reflecting the growth in arthroscopic knee procedures. The number of these procedures increased by 41.5 percent and allowed charges by 47.7 percent. Major orthopedic procedures increased by 9.2 percent and ambulatory procedures by 9.7 percent. The most important individual procedure was knee replacements, where allowed charges grew at 18.5 percent, substantially faster than outlays on hip replacements during this period. There are a number of hip procedure codes, several of which changed during the 1985-1988 period. In the aggregate, allowed charges for all hip replacement procedures increased by 9.3 percent between 1985 and 1988.

Thoracic Surgery

Thoracic surgeons had $842.1 million in Medicare allowed charges in 1988 (Table 11). Thoracic surgeons derive most of their Medicare income from cardiovascular procedures. Thoracic surgeons perform coronary artery bypass grafts, thromboendartorectomies, aneurism repairs, and pacemaker insertions. During this period, the number of major cardiovascular procedures increased by

Table 10
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Orthopedic Surgery

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	3,279.9	4,066.9	33.26%	7.43%	79.7	116.7	8.91%	13.55%
M2	HOSPITAL VISITS	1,165.3	891.0	7.29%	-8.56%	31.5	29.6	2.26%	-2.01%
M6	CONSULTATIONS	336.1	377.9	3.09%	3.98%	20.4	26.6	2.03%	9.26%
P1	MAJOR PROCEDURES - OTHER	16.0	23.8	0.19%	14.11%	19.6	32.0	2.44%	17.75%
P1M	ORTHOPEDIC	398.7	470.4	3.85%	5.67%	558.5	727.1	55.51%	9.19%
P2	AMBULATORY PROCEDURES - OTHER	280.8	348.5	2.85%	7.46%	84.5	111.6	8.52%	9.73%
P3	MINOR PROCEDURES	1,591.8	2,239.7	18.32%	12.06%	54.8	77.5	5.92%	12.28%
P6	ENDOSCOPY PROCEDURES	32.1	57.0	0.47%	21.04%	23.1	50.8	3.88%	30.10%
I1	STANDARD IMAGING	2,420.8	2,996.1	24.50%	7.37%	79.1	110.5	8.43%	11.77%
	OTHER ORTHOPEDIC SURGERY SERVICES	620.7	757.3	6.19%	6.85%	28.5	27.5	2.10%	-1.21%
	ALL ORTHOPEDIC SURGERY SERVICES	10,142.3	12,228.6	100.00%	6.43%	979.5	1,309.8	100.00%	10.17%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Table 11
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Thoracic Surgery

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
M2	HOSPITAL VISITS	379.1	382.2	17.46%	0.27%	11.9	14.4	1.71%	6.56%
M6	CONSULTATIONS	192.5	236.0	10.78%	7.03%	14.2	19.7	2.34%	11.54%
P1	MAJOR PROCEDURES - OTHER	83.7	93.9	4.29%	3.94%	61.0	74.4	8.84%	6.84%
P1C	CARDIOVASCULAR	217.2	284.5	13.00%	9.42%	427.9	639.7	75.97%	14.35%
P6	ENDOSCOPY PROCEDURES	52.1	50.0	2.28%	-1.41%	13.7	14.6	1.74%	2.24%
T2	OTHER TESTS	239.7	314.0	14.35%	9.42%	10.8	18.3	2.18%	19.23%
	OTHER THORACIC SERVICES	686.7	828.1	37.83%	6.44%	49.0	60.9	7.23%	7.55%
	ALL THORACIC SERVICES	1,850.9	2,188.7	100.00%	5.75%	588.5	842.1	100.00%	12.69%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

9.4 percent, and allowed charges for major cardiovascular procedures increased by 14.4 percent. There are several coronary artery bypass graft (CABG) codes, reflecting the number of arteries affected. The most common CABG procedures, grafts of between two and five arteries, increased by 13.8 to 17.3 percent. Allowed charges for these four procedures increased by 16.8 to 19.6 percent per year. In contrast, the number of pacemaker insertions was relatively stable over the period.

Urology

Urologists accounted for $900.5 million in Medicare physician allowed charges in 1988 (Table 12). Allowed charges for urology procedures increased by 9.6 percent during this period. Urologists derive 41 percent of their Medicare revenue from major procedures/other, and 21.1 percent from endoscopy procedures, i.e., cystourethroscopy. Major procedures/other increased by only 4.8 percent, reflecting the very slow rate of growth in transurethral resection of the prostate (TURP) procedures. The number of TURPs increased by only 1.6 percent and allowed charges by only 3.7 percent. Thus, the dominant procedure for this specialty increased at about the same rate of growth for new Medicare beneficiaries. Cystourethroscopy procedures, however, which are more discretionary in nature, increased at significantly faster rates. The number of procedures increased by 7.8 percent and allowed charges by 13.5 percent. Urologists also had increases in allowed charges from office visits of about 14.2 percent and in ambulatory procedures/other at about 15.7 percent. The latter reflects, in part, the introduction and significant growth in extracorporeal shock wave lithotripsy. The number of lithotripsy procedures increased from approximately 1200 to almost 18,000, and allowed charges increased from $1.1 million to $16.8 million.

Table 12
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Urology

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	2,840.0	3,621.7	26.45%	8.44%	60.4	89.9	9.98%	14.17%
M2	HOSPITAL VISITS	949.7	874.3	6.39%	-2.72%	27.2	29.2	3.25%	2.47%
M6	CONSULTATIONS	449.1	515.5	3.76%	4.70%	26.7	36.1	4.01%	10.48%
P1	MAJOR PROCEDURES - OTHER	321.8	316.9	2.31%	-0.51%	320.6	368.8	40.95%	4.78%
P2	AMBULATORY PROCEDURES - OTHER	558.8	591.1	4.32%	1.89%	46.0	71.2	7.91%	15.73%
P3	MINOR PROCEDURES	427.9	718.0	5.24%	18.83%	13.8	27.8	3.09%	26.30%
P6	ENDOSCOPY PROCEDURES	792.6	992.6	7.25%	7.79%	130.0	190.0	21.10%	13.47%
I3	SONOGRAPHY	8.9	125.8	0.92%	141.57%	0.9	17.1	1.89%	161.89%
T1	LABORATORY TESTS	3,501.6	4,841.2	35.36%	11.40%	22.3	30.6	3.40%	11.15%
	OTHER UROLOGY SERVICES	1,037.8	1,094.0	7.99%	1.77%	35.3	39.8	4.42%	4.06%
	ALL UROLOGY SERVICES	10,888.3	13,691.2	100.00%	7.93%	683.2	900.5	100.00%	9.64%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Dermatology

Dermatologists had allowed charges of $443.0 million in 1988 (Table 13). Allowed charges for dermatologists increased by 14.1 percent. Dermatologists derived 31.8 percent of their Medicare revenue from ambulatory procedures/other and 37.5 percent from minor procedures. Allowed charges for ambulatory procedures increased by 12.8 percent and minor procedures grew by 18.4 percent. Finally, office visits, which accounted for 18.2 percent of allowed charges, increased by 14.0 percent. The high growth rates for dermatology may reflect the fact that as the population ages more individuals are developing various skin cancers and lesions from aging, as well as increasing awareness of the possibility of skin cancers.

Other Surgical Specialties

Other surgical specialties include neurosurgeons, otolaryngologists, and obstetrician/gynecologists (Table 14). As a group, other surgical specialties accounted for $910.8 million in 1988. The most important services for this group were office visits, major procedures/other, and ambulatory procedures/other. These accounted for 16.4, 31.6, and 17.1 percent of charges provided by this group in 1988. In comparison with other surgical specialties, this residual group did not have a particularly rapid rate of growth in allowed charges. The growth rates for major procedures/other and ambulatory procedures/other, however, were 11.3 and 12.1 percent, slightly faster than the growth rate for these types of services on average. The fastest growing services for other surgical specialties were minor procedures, which increased by 15.5 percent and endoscopies which increased by 15.9 percent.

Table 13
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Dermatology

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	2,354.6	2,984.2	22.99%	8.22%	54.5	80.7	18.22%	13.98%
M5	SPECIALIST EVALUATION & MANAGEMENT SERVICES	594.6	774.4	5.97%	9.21%	18.3	26.7	6.04%	13.58%
M6	CONSULTATIONS	125.0	137.0	1.05%	3.10%	6.5	8.4	1.89%	8.57%
P2	AMBULATORY PROCEDURES - OTHER	1,013.8	1,255.2	9.67%	7.38%	98.3	141.1	31.84%	12.80%
P3	MINOR PROCEDURES	4,080.1	6,739.1	51.91%	18.21%	100.0	166.0	37.48%	18.42%
	OTHER DERMATOLOGY SERVICES	1,087.7	1,092.5	8.42%	0.15%	20.4	20.1	4.54%	-0.46%
	ALL DERMATOLOGY SERVICES	9,255.6	12,982.4	100.00%	11.94%	297.9	443.0	100.00%	14.14%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Table 14
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Other Surgical Specialty

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	4,267.1	5,087.5	40.50%	6.04%	106.2	149.2	16.38%	12.01%
M2	HOSPITAL VISITS	925.0	813.8	6.48%	-4.18%	26.7	28.5	3.13%	2.21%
M6	CONSULTATIONS	474.8	540.7	4.30%	4.43%	29.6	39.1	4.30%	9.79%
P1	MAJOR PROCEDURES - OTHER	196.2	250.7	2.00%	8.50%	208.3	287.5	31.57%	11.33%
P2	AMBULATORY PROCEDURES - OTHER	393.7	513.5	4.09%	9.27%	111.0	156.1	17.14%	12.05%
P2E	AMBULATORY PROCEDURES - EYE	13.086	17.9	0.14%	11.04%	14.4	19.1	2.10%	9.73%
P3	MINOR PROCEDURES	558.6	849.8	6.77%	15.01%	27.1	41.8	4.59%	15.53%
P6	ENDOSCOPY PROCEDURES	302.1	414.5	3.30%	11.12%	43.3	67.5	7.41%	15.93%
T2	OTHER TESTS	1,019.8	1,326.2	10.56%	9.15%	24.5	34.4	3.78%	12.03%
	OTHER SURGICAL SPECIALTY SERVICES-other	2,279.6	2,745.6	21.86%	6.40%	82.4	87.6	9.61%	2.03%
	ALL SURGICAL SPECIALTY SERVICES-other	10,429.9	12,560.2	100.00%	6.39%	673.6	910.8	100.00%	10.58%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Note: Other surgical specialties include otolaryngologists, neurosurgeons, obstetrician/gynecologists, plastic surgeons, hand surgeons, proctologists, and all associated osteopathic surgeons.

Multi-Specialty Clinics

Multi-specialty clinics accounted for $1.6 billion in 1988 (Table 15). As one might expect, multi-specialty clinics provide services across a broad array of types of services. Office and hospital visits were the most important, accounting for 12.8 and 11.5 percent of allowed charges in 1988. Next in importance were standard imaging, emergency room services, and other tests. As a group, multi-specialty clinics had an overall growth rate of 14.3 percent per year. Several types of services increased rather rapidly for multi-specialty clinics. Allowed charges for imaging increased by 51.8 percent per year, sonography by 31.1 percent, and imaging/procedures by 22.2 percent. Standard imaging, emergency room services, and specialist evaluation and management services also increased very rapidly.

Radiology

Radiologists had $2.4 billion in Medicare allowed charges in 1988, thus ranking third behind internal medicine and ophthalmology (Table 16). This group includes radiation therapists as well as all other radiologists. As a result, oncology services as well as various imaging procedures are important for this group even though they are performed by significantly different types of physician practices. Oncology services account for 14.8 percent of allowed charges of radiologists. Oncology services increased by only 2.8 percent but allowed charges grew by 16.4 during the period; some of the differential, but by no means all, reflects upcoding.

Standard imaging accounted for 73.7 percent of all services performed by radiologists and 42.3 percent of allowed charges. Standard imaging, however, increased by only 9.4 percent. The exception to the low growth rates for standard imaging was mammographies, where services increased by 42.6 percent, and allowed charges increased by 49.1 percent. This is clearly due to

Table 15
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Multi-Specialty Clinics

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
M1	OFFICE VISITS	7,091.7	7,987.7	18.68%	4.05%	$151.0	$207.0	12.83%	11.08%
M2	HOSPITAL VISITS	5,082.2	5,116.8	11.97%	0.23%	155.1	185.3	11.48%	6.11%
M3	EMERGENCY ROOM SERVICES	2,111.4	2,906.2	6.80%	11.24%	64.7	117.6	7.29%	22.06%
M4	NON-HOSPITAL, NON-SPECIALIST VISITS	1,108.1	1,344.2	3.14%	6.65%	21.6	33.8	2.10%	16.10%
M5	SPECIALIST EVALUATION & MANAGEMENT SERVICES	1,035.8	1,279.8	2.99%	7.31%	27.5	46.1	2.86%	18.76%
M6	CONSULTATIONS	591.7	683.5	1.60%	4.93%	36.0	47.8	2.96%	9.87%
P1	MAJOR PROCEDURES - OTHER	145.0	149.2	0.35%	0.95%	70.0	84.5	5.24%	6.45%
P1C	CARDIOVASCULAR	169.1	213.9	0.50%	8.15%	61.5	87.9	5.45%	12.61%
P1M	ORTHOPEDIC	24.0	21.7	0.05%	-3.38%	25.3	29.8	1.85%	5.64%
P2	AMBULATORY PROCEDURES - OTHER	186.1	207.3	0.48%	3.66%	30.2	40.7	2.52%	10.52%
P2E	AMBULATORY PROCEDURES - EYE	37.4	40.6	0.10%	2.78%	36.1	45.9	2.85%	8.37%
P3	MINOR PROCEDURES	921.7	1,316.5	3.08%	12.62%	26.5	42.7	2.64%	17.18%
P5	ONCOLOGY SERVICES	447.9	570.5	1.33%	8.40%	17.0	31.2	1.93%	22.56%
P6	ENDOSCOPY PROCEDURES	230.7	283.5	0.66%	7.11%	41.9	65.3	4.05%	15.91%
I1	STANDARD IMAGING	2,807.4	4,428.9	10.36%	16.41%	72.6	139.3	8.64%	24.26%
I2	ADVANCED IMAGING	168.7	379.7	0.89%	31.05%	19.3	67.5	4.19%	51.75%
I3	SONOGRAPHY	314.1	591.8	1.38%	23.51%	23.5	53.0	3.29%	31.10%
I4	IMAGING/PROCEDURES	84.6	112.2	0.26%	9.87%	18.4	33.6	2.08%	22.20%
T1	LABORATORY TESTS	4,577.6	6,728.9	15.74%	13.70%	35.2	50.7	3.14%	12.90%
T2	OTHER TESTS	3,928.3	4,980.1	11.65%	8.23%	71.7	115.4	7.16%	17.18%
	OTHER MULTI-SPECIALTY GROUP PRACTICE	3,160.8	3,417.9	7.99%	2.64%	74.2	88.1	5.46%	5.89%
	ALL MULTI-SPECIALTY GROUP PRACTICE	34,224.5	42,760.9	100.00%	7.71%	1,079.4	1,613.1	100.00%	14.33%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Table 16
Growth in Services and Allowed Charges for Individual Procedures, by Types of Services, 1985-1988
Radiology

New TOS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
P5	ONCOLOGY SERVICES	4,819.2	5,228.2	9.47%	2.75%	222.5	351.1	14.84%	16.43%
I1	STANDARD IMAGING	35,808.9	40,712.8	73.74%	4.37%	762.6	997.4	42.16%	9.36%
I2	ADVANCED IMAGING	3,150.2	4,318.5	7.82%	11.09%	276.2	618.1	26.13%	30.80%
I3	SONOGRAPHY	1,627.4	2,288.6	4.15%	12.04%	90.9	154.8	6.55%	19.43%
I4	IMAGING/PROCEDURES	807.9	787.6	1.43%	-0.85%	123.9	147.7	6.24%	6.02%
	OTHER RADIOLOGY SERVICES	4,882.4	1,877.8	3.40%	-27.28%	112.3	96.4	4.07%	-4.96%
	ALL RADIOLOGY SERVICES	51,096.0	55,213.5	100.00%	2.62%	1,588.3	2,365.5	100.00%	14.20%

SOURCE: Tabulations from the 1985 and 1988 BMAD procedure files.

Note: The decline in the residual other category reflects a decline in the use of unclassifiable codes.

increased beneficiary awareness since the Medicare mammography screening benefit was not effective until January 1, 1991. (Thus the increase came in spite of lack of Medicare payment specifically for screening purposes.) The bottom line, however, was that the high growth rate for radiologists was not attributable to routine x-rays. Most of the growth for radiologists was due to technological innovation in advanced imaging and sonography. Advanced imaging procedures increased by 11.1 percent per year and allowed charges by 30.8 percent, reflecting the introduction of MRIs, a significantly more expensive technology than CT scans. A wide range of CT scan procedures increased rapidly. Allowed charges increased by 15 to 25 percent per year. Magnetic resonance imaging of the orbit face and neck increased from about 8,000 in 1985 to almost 177,000 in 1988. The result was that allowed charges for this one procedure alone increased from about $200,000 to $57.4 million in 1988. Finally, allowed charges for ultrasound procedures increased by 19.4 percent per year.

Pathology/Laboratory

Pathology and laboratory services accounted for $1.3 billion in Medicare allowed charges in 1988 (Table 17). Allowed charges for these services increased by 17.7 percent during this period. Pathology and laboratory services are divided predominantly into specialist evaluation and management services, i.e., surgical pathology and laboratory tests. The specialist evaluation and management services accounted for 24.1 percent of allowed charges. Laboratory tests accounted for about 68 percent of all allowed charges. Both categories increased dramatically—specialist evaluation and management services by 20.4 percent and laboratory tests by 18.8 percent. The specialist evaluation and management growth reflects increases in all of the major surgical pathology procedure codes. Growth in laboratory tests was not

Table A.3
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Internal Medicine

HCPCS	Description	1985 Total Allowed Services (in millions)	1988 Total Allowed Services (in millions)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90020	Office medical service, new patient, comprehensive service	0.7	0.8	0.53%	3.68%	$40.9	$55.6	1.30%	10.76%
90040	Office medical service, established patient, brief service	3.8	2.6	1.77%	-11.92%	65.2	49.3	1.15%	-8.92%
90050	Office medical service, established patient, limited service	11.8	13.0	8.77%	3.22%	241.1	291.6	6.82%	6.54%
90060	Office medical service, established patient, intermediate service	11.0	15.2	10.25%	11.35%	266.7	421.3	9.86%	16.47%
90070	Office medical service, established patient, extended service	2.0	3.0	2.03%	14.05%	63.4	110.3	2.58%	20.27%
90080	Office medical service, established patient, comprehensive service	1.4	1.7	1.13%	6.00%	69.1	96.6	2.26%	11.82%
90215	Initial hospital care, intermediate history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records	0.7	0.6	0.40%	-6.38%	42.3	39.0	0.91%	-2.64%
90220	Initial hospital care, comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records	2.3	2.3	1.53%	-0.13%	157.9	187.3	4.38%	5.87%
90240	Subsequent hospital care, each day, brief service	4.0	2.4	1.61%	-16.04%	80.5	51.2	1.20%	-14.00%
90250	Subsequent hospital care, each day, limited service	11.1	9.7	6.54%	-4.41%	260.6	254.8	5.96%	-0.75%
90260	Subsequent hospital care, each day, intermediate service	11.6	13.4	9.07%	4.96%	331.3	409.4	9.58%	7.31%
90270	Subsequent hospital care, each day, extended service	2.4	2.9	1.97%	6.97%	82.7	115.3	2.70%	11.70%
90620	Initial consultation, comprehensive	1.1	1.4	0.93%	6.47%	98.1	131.9	3.09%	10.36%
71020	Radiological examination, chest, two views, frontal and lateral	1.2	1.3	0.90%	4.50%	40.0	49.8	1.17%	7.59%
93000	Electrocardiogram, routine ECG with at least 12 leads, with interpretation and report	4.2	4.4	2.95%	1.08%	127.5	152.6	3.57%	6.19%
93010	Electrocardiogram, routine ECG with at least 12 leads, interpretation and report only	4.2	5.0	3.39%	5.98%	45.1	65.4	1.53%	13.18%
	Other Internal Medicine Procedures	129.9	74.5	50.29%	-16.92%	3,332.3	2,260.4	52.90%	-12.13%
	All Internal Medicine Procedures	129.9	148.1	100.00%	4.47%	3,332.6	4,272.8	100.00%	8.64%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for Internal Medicine in any year between 1985 and 1988.

Table A.4
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Cardiology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90050	Office medical service, established patient, limited service	1,243.7	1,580.9	4.61%	8.33%	$27.3	$38.5	2.08%	12.06%
90060	Office medical service, established patient, intermediate service	1,651.1	2,575.6	7.51%	15.97%	45.1	79.8	4.32%	20.97%
90220	Initial hospital care, comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records	411.0	497.0	1.45%	6.54%	30.5	44.9	2.43%	13.70%
90250	Subsequent hospital care, each day, limited service	1,806.7	1,759.5	5.13%	-0.88%	46.4	50.0	2.71%	2.55%
90260	Subsequent hospital care, each day, intermediate service	2,131.0	2,935.1	8.56%	11.26%	65.4	98.9	5.35%	14.79%
90270	Subsequent hospital care, each day, extended service	673.5	1,003.6	2.93%	14.22%	25.7	44.7	2.42%	20.21%
99173	Critical care, subsequent follow-up visit, intermediate examination, evaluation and/or treatment, same or new illness	293.0	616.9	1.80%	28.18%	12.1	31.8	1.72%	38.07%
90620	Initial consultation, comprehensive	446.8	635.0	1.85%	12.44%	40.7	64.6	3.50%	16.65%
93000	Electrocardiogram, routine ECG with at least 12 leads with interpretation and report	1,695.5	1,950.7	5.69%	4.78%	48.3	70.5	3.82%	13.43%
93010	Electrocardiogram, routine ECG with at least 12 leads interpretation and report only	4,113.1	6,604.5	19.27%	17.10%	47.0	86.0	4.65%	22.32%
93015	Cardiovascular stress test using maximal or submaximal treadmill or bicycle exercise; continuous electrocardiographic monitoring, with interpretation and report	193.8	322.8	0.94%	18.54%	23.3	45.6	2.47%	25.07%
93262	Electrocardiographic monitoring, 12–24 hours of continuous analog recording, with physician review, interpretation, and report, with or without full disclosure printout with superimposition scanning	0.0	41.5	0.12%		0.0	7.4	0.40%	
93274	Electrocardiographic monitoring utilizing a system such as magnetic tape, 12 through 24 hours, includes recording, scanning analysis, interpretation and report	146.6	0.1	0.00%	-92.26%	23.6	0.017	0.00%	-91.11%
Q0019	Electrocardiographic monitoring for 24 hours by continuous original ECG waveform recording and storage, with visual superimposition scanning; includes recording, scanning analysis with report, physician review and interpretation	0.0	134.2	0.39%		0.0	27.8	1.51%	
93307	Echocardiography, real time with image documentation (2D), complete	175.7	238.7	0.70%	10.74%	17.5	23.7	1.28%	10.60%

Table A.4 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Cardiology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
93309	Echocardiography, M-mode and real time with image documentation	87.4	474.0	1.38%	75.68%	$11.6	$71.7	3.88%	83.56%
76629	Echocardiography, m-mode and real time with image documentation	26.3	192.3	0.56%	94.13%	3.2	30.8	1.67%	113.15%
93547	Combined left heart catheterization, selective coronary angiography, and selective left ventricular angiography (PC)	84.7	173.9	0.51%	27.11%	50.6	122.9	6.65%	24.45%
93549	Combined right and left heart catheterization, selective coronary angiography, and selective left ventricular angiography	56.7	94.9	0.28%	18.70%	44.5	85.8	4.64%	24.45%
93503	Right heart catheterization, placement of flow directed catheter (eg, swan-ganz), with or without balloon tip, when placed for monitoring purposes, collection purposes, collection of blood, and/or angiography	50.8	60.8	0.18%	6.15%	13.8	20.5	1.11%	14.12%
92982	Percutaneous transluminal coronary angioplasty, single vessel	15.4	52.2	0.15%	50.09%	13.4	80.2	4.34%	81.49%
	Other Cardiology Procedures	8,968.5	12,333.7	35.98%	11.20%	444.3	721.2	39.04%	17.52%
	All Cardiology Procedures	24,271.3	34,277.8	100.00%	12.19%	1,034.3	1,847.3	100.00%	21.33%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Cardiology in any year between 1985 and 1988.
Note (2): HCFA instructed providers and carreiers to use specific level II HCPCS codes (Q codes) for ambulatory cardiac monitoring procedures during this time period rather than specific CPT-4 codes. In addition, the 1987 edition of CPT-4 eliminated the 93270-93277 range of electrocardiograph monitoring codes, replacing them with new codes in the range 93258-93262. This explains the sharp increases in 93262 and decreases in 93274.

Table A.5
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Gastroenterology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
90050	Office medical service, established patient, limited service	311.3	402.7	6.01%	8.97%	$7.1	$9.9	1.63%	11.87%
90060	Office medical service, established patient, intermediate service	335.7	549.9	8.21%	17.88%	9.0	16.3	2.68%	22.00%
90220	Initial hospital care, comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records	80.2	96.1	1.43%	6.20%	5.9	8.2	1.35%	11.81%
90250	Subsequent hospital care, each day, limited service	569.8	622.7	9.30%	3.00%	15.0	17.3	2.84%	4.95%
90260	Subsequent hospital care, each day, intermediate service	556.9	834.5	12.46%	14.43%	16.0	26.1	4.28%	17.65%
90270	Subsequent hospital care, each day, extended service	105.8	151.1	2.26%	12.62%	3.9	6.3	1.03%	17.27%
90620	Initial consultation, comprehensive	198.0	306.7	4.58%	15.70%	17.7	30.5	5.01%	19.91%
90630	Initial consultation, complex	29.4	59.4	0.89%	26.39%	3.7	7.5	1.24%	27.00%
43235	Upper gastrointestinal endoscopy including esophagus, stomach and either the duodenum and/or jejunum as appropriate, complex diagnostic	152.8	256.3	3.83%	18.82%	44.1	79.0	12.98%	21.46%
43246	Upper gastrointestinal endoscopy including esophagus, stomach, and either the doudenum and/or jejunum as appropriate for directed placement of percutaneous gastrostomy tube	0.781	16.2	0.24%	174.93%	0.3	8.3	1.37%	195.24%
43239	Upper gastrointestinal endoscopy including esophagus, stomach and either the duodenum and/or jejunum as appropriate, for biopsy and/or collection of specimen by brushing or washing	93.3	162.7	2.43%	20.37%	31.0	57.3	9.41%	22.67%
43260	Endoscopic retrograde cholangiopancreatography (ERCP), with or without specimen collection	15.3	23.7	0.35%	15.72%	6.6	11.6	1.91%	20.61%
45330	Sigmoidoscopy, flexible fiberoptic, diagnostic	73.6	155.8	2.33%	28.38%	6.7	15.8	2.60%	33.30%
45360	Colonoscopy, fiberoptic, beyond 25 cm to splenic flexure, diagnostic procedure	37.6	2.7	0.04%	-58.62%	8.5	0.6	0.09%	-59.60%
45378	Colonoscopy, fiberoptic, beyond splenic flexure, diagnostic procedure	82.7	170.6	2.55%	27.30%	32.5	75.1	12.34%	32.21%
45380	Colonoscopy, fiberoptic, beyond splenic flexure, for biopsy and/or collection of specimen by brushing or washing	37.8	76.4	1.14%	26.43%	16.6	37.2	6.11%	30.96%
45385	Colonoscopy, fiberoptic, beyond splenic flexure, for removal of polypoid lesion(s)	48.6	107.4	1.60%	30.28%	29.5	72.8	11.96%	35.20%

Table A.5 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Gastroenterology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
	Other Gastroenterology Procedures	2,025.0	2,702.8	40.35%	10.10%	83.7	128.9	21.17%	15.49%
	All Gastroenterology Procedures	4,754.6	6,697.7	100.00%	12.10%	337.6	608.8	100.00%	21.71%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Gastroenterology in any year between 1985 and 1988.
Note (2): The 1988 edition of CPT-4 directed physicians to use code 45330 rather than 45360, which explains much of the sharp increase in the former and declines in the latter.

Table A.6
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Psychiatry

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90801	Psychiatric diagnostic interview examination including history, mental status, or disposition (may include communication with family or other sources, ordering and medical interpretation of laboratory or other medical diagnostic studies. In certain circumstances other informants will be seen in lieu of the patient)	115.4	169.5	1.98%	13.68%	$6.6	$12.6	3.59%	23.84%
90841	Individual medical psychotherapy by a physician, with continuing medical diagnostic evaluation, and drug management when indicated, including psychoanalysis, insight oriented, behavior modifying or supportive psychotherapy, time unspecified	649.1	799.4	9.33%	7.19%	17.1	28.5	8.14%	18.53%
90843	Individual medical psychotherapy by a physician, with continuing medical diagnostic evaluation, and drug management when indicated, including psychoanalysis, insight oriented, behavior modifying or supportive psychotherapy, approximately 20 to 30 minutes	1,451.4	1,786.2	20.84%	7.17%	42.1	53.7	15.32%	8.42%
90844	Individual medical psychotherapy by a physician, with continuing medical diagnostic evaluation, and drug management when indicated, including psychoanalysis, insight oriented, behavior modifying or supportive psychotherapy, approximately 45 to 50 minutes	1,546.0	1,807.6	21.09%	5.35%	66.1	99.3	28.35%	14.51%
90853	Group medical psychotherapy (other than of a multiple-family group) by a physician, with continuing medical diagnostic evaluation and drug management when indicated	349.6	401.9	4.69%	4.75%	4.0	6.4	1.83%	16.67%
90862	Chemotherapy management, including prescription, use, and review of medication with no more than minimal medical psychotherapy	238.2	400.9	4.68%	18.95%	6.4	8.9	2.55%	11.74%
90870	Electroconvulsive therapy (includes necessary monitoring)	82.1	85.9	1.00%	1.54%	5.0	5.7	1.63%	4.49%
90220	Initial hospital care, comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records	91.1	116.5	1.36%	8.54%	6.9	10.6	3.04%	15.64%
90240	Subsequent hospital care, each day, brief services	236.7	217.9	2.54%	-2.73%	5.5	5.9	1.67%	2.31%
90250	Subsequent hospital care, each day, limited service	364.8	366.0	4.27%	0.11%	10.1	12.1	3.44%	6.01%

Table A.6 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Psychiatry

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
90260	Subsequent hospital care, each day, intermediate service	382.6	505.5	5.90%	9.73%	$12.8	$20.1	5.73%	16.05%
90270	Subsequent hospital care, each day, extended service	142.6	216.9	2.53%	15.00%	6.7	11.7	3.33%	20.50%
90280	Subsequent hospital care, each day, comprehensive service	145.9	174.9	2.04%	6.22%	6.4	10.5	3.01%	18.25%
90620	Initial consultation, comprehensive	94.0	124.6	1.45%	9.84%	8.0	12.1	3.46%	14.94%
	Other Psychiatry Procedures	1,147.8	1,395.5	16.29%	6.73%	33.5	52.3	14.91%	15.95%
	All Psychiatry Procedures	7,037.4	8,569.3	100.00%	6.79%	237.3	350.4	100.00%	13.87%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for Psychiatry in any year between 1985 and 1988.

Table A.7
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Other Medical Specialty

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90050	Office medical service, established patient, limited service	1,040.3	1,295.5	4.40%	7.59%	$21.9	$30.6	2.59%	11.72%
90060	Office medical service, established patient, intermediate service	1,027.2	1,686.8	5.72%	17.98%	26.3	49.6	4.19%	23.61%
90070	Office medical service, established patient, extended service	274.1	471.8	1.60%	19.84%	8.8	18.1	1.53%	26.93%
90220	Initial hospital care comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital	313.1	355.6	1.21%	4.33%	22.4	31.5	2.67%	12.15%
90240	Subsequent hospital care, each day, brief service	882.4	748.4	2.54%	-5.35%	17.0	16.1	1.36%	-1.64%
90250	Subsequent hospital care, each day, limited service	2,274.1	2,437.8	8.27%	2.34%	59.0	68.8	5.82%	5.23%
90260	Subsequent hospital care, each day, intermediate service	2,341.7	3,476.5	11.80%	14.08%	68.7	115.6	9.77%	18.93%
90270	Subsequent hospital care, each day, extended service	654.2	973.8	3.30%	14.18%	23.8	42.1	3.56%	20.94%
99173	Critical care, subsequent follow-up visit, intermediate examination, evaluation and/or treatment, same or new illness	202.4	427.7	1.45%	28.32%	8.3	22.4	1.90%	39.39%
99174	Critical care, subsequent follow-up visit, extended re-examination, re-evaluation and/or treatment, same or new illness	127.0	270.3	0.92%	28.64%	6.6	16.6	1.40%	36.05%
90620	Initial consultation, comprehensive	735.9	983.1	3.34%	10.13%	65.9	115.6	9.77%	20.62%
90630	Initial consultation, complex	188.4	298.7	1.01%	16.59%	21.4	38.3	3.24%	21.31%
95819	Electroencephalogram (EEG) including recording awake, drowsy, and asleep, with hyperventilation and/or photic stimulation standard or portable, same facility	279.6	368.7	1.25%	9.65%	12.8	19.5	1.65%	14.84%
95900	Nerve conduction, velocity and/or latency study motor, each nerve	356.6	643.8	2.18%	21.76%	12.0	22.4	1.90%	23.14%
M0945	Outpatient dialysis related physicians' services either provided by the physician primarily responsible for total dialysis care or under his/her discretion, on monthly basis	1,446.3	1,046.6	3.55%	-10.22%	9.6	53.8	4.55%	77.67%
90937	Hemodialysis procedure requiring repeated evaluation(s) with or without substantial revision of dialysis perscription	0.0	80.1	0.27%		0.0	17.7	1.50%	
90951	Hemodialysis, for end-stage renal disease (ESRD), stabilizing	118.1	102.7	0.35%	-4.55%	17.3	11.4	0.97%	-12.85%

Table A.7 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Other Medical Specialty

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90988	Supervision of hemodialysis in hospital or other facility (excluding home dialysis), on monthly basis	121.9	140.5	0.48%	4.86%	$16.8	$15.4	1.30%	-2.85%
90991	Home hemodialysis care, outpatient, for those services either provided by the physician primarily responsible for total hemodialysis care or under his direct supervision, and excludes care for complicating illnesses unrelated to hemodialysis, on monthly basis	642.5	281.4	0.96%	-24.06%	11.4	9.3	0.78%	-6.62%
	Medical Specialty Procedures-other	10,083.6	13,374.7	45.39%	9.87%	335.9	468.0	39.57%	11.69%
	All Medical Specialty Procedures-other	23,109.7	29,464.5	100.00%	8.43%	765.9	1,182.9	100.00%	15.59%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Medical Specialty in any year between 1985 and 1988.
Note (2): Other Medical Specialties include neurologists, allergists, physical and rehabilitative medicine, nephrologists, pediatrics, and geriatrics.
Note (3): Some of the rapid increases in some dialysis codes may reflect either decreased use of local codes or under reporting in 1985 of dialysis services.

Table A.8
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
General Surgery

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90050	Office medical service, established patient, limited service	1,642.2	1,611.8	10.25%	-0.62%	$28.4	$31.7	1.75%	3.71%
90060	Office medical service, established patient, intermediate service	1,243.6	1,557.2	9.91%	7.79%	25.6	37.6	2.07%	13.77%
90220	Initial hospital care, comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records	280.2	260.2	1.66%	-2.44%	16.0	18.1	1.00%	4.23%
90250	Subsequent hospital care, each day, limited service	1,026.5	704.0	4.48%	-11.81%	20.7	16.5	0.91%	-7.29%
90260	Subsequent hospital care, each day, intermediate service	883.1	877.6	5.58%	-0.21%	21.7	24.1	1.33%	3.55%
90620	Initial consultation, comprehensive	281.0	363.8	2.31%	8.99%	20.4	30.7	1.69%	14.51%
19120	Excision of cyst, fibroadenoma, or other benign or malignant tumor aberrant breast tissue, duct lesion or nipple lesion (except 19140) male or female, 1 or more lesions	47.5	89.5	0.57%	23.51%	12.3	26.0	1.43%	28.23%
19240	Mastectomy, modified radical, including axillary lymph nodes but leaving pectoral muscles	31.9	44.0	0.28%	11.36%	32.4	48.6	2.67%	14.48%
35081	Direct repair of aneurysm or excision (partial or total) and graft insertion, with or without patch graft for aneurysm or occlusive disease, abdominal aorta	8.5	8.1	0.05%	-1.66%	19.1	20.2	1.11%	1.87%
35301	Thromboendarterectomy, with or without patch graft, carotid, vertebral, subclavian, by neck incision	27.9	22.2	0.14%	-7.33%	46.7	41.1	2.26%	-4.20%
36830	Creation of arteriovenous fistula nonautogenous graft	11.9	18.5	0.12%	16.01%	11.8	21.2	1.17%	21.68%
44120	Enterectomy, resection of small intestine with anastomosis	17.2	19.8	0.13%	4.80%	17.0	20.8	1.15%	6.97%
44140	Colectomy, partial with anastomosis	52.2	53.3	0.34%	0.71%	65.0	71.3	3.93%	3.15%
45378	Colonoscopy, fiberoptic, beyond splenic flexure, diagnostic procedure	32.9	68.9	0.44%	27.92%	11.7	28.9	1.59%	35.05%
47600	Cholecystectomy	38.2	37.1	0.24%	-0.97%	31.4	32.3	1.78%	0.92%
47605	Cholecystectomy with cholangiography	49.2	62.3	0.40%	8.16%	44.7	62.0	3.41%	11.50%
47610	Cholecystectomy with exploration of common duct,	22.7	23.7	0.15%	1.39%	23.3	27.1	1.49%	5.26%
49505	Repair inguinal hernia, age 5 or over	76.0	88.4	0.56%	5.16%	40.6	51.6	2.84%	8.38%
	Other General Surgery Procedures	9,674.1	9,811.1	62.41%	0.47%	993.2	1,206.2	66.42%	6.69%
	All General Surgery Procedures	15,446.7	15,721.4	100.00%	0.59%	1,482.0	1,816.1	100.00%	7.01%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for General Surgery in any year between 1985 and 1988.

Table A.9
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Ophthalmology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90050	Office medical service, established patient, limited service	1,473.8	1,845.1	7.97%	7.78%	$28.0	$39.6	1.22%	12.30%
92004	Ophthalmological services: medical examination and evaluation with initiation of diagnostic and treatment program comprehensive, new patient, one or more visits	972.6	1,274.3	5.51%	9.43%	38.1	55.7	1.72%	13.54%
92012	Ophthalmological services: medical examination and evaluation with initiation or continuation of diagnostic and treatment program intermediate, established patient	2,310.7	3,686.6	15.93%	16.85%	62.2	116.9	3.61%	23.41%
92014	Ophthalmological services: medical examination comprehensive, established patient, one or more visits	2,154.8	3,700.6	15.99%	19.75%	81.1	153.5	4.75%	23.71%
92083	Visual field examination with medical diagnostic evaluation extended examination, quantitative perimetry (eg, manual static and kinetic perimetry on goldman or tubingen perimeter or equivalent, or automated static perimetry complex, such as octopus program 31 & 41, or 32 & 42)	124.5	509.5	2.20%	59.95%	5.0	31.1	0.96%	83.34%
92235	Ophthalmoscopy, with medical diagnostic evaluation with fluorescein angiography (includes multiframe photography)	220.2	352.7	1.52%	17.00%	25.4	46.0	1.42%	21.92%
65855	Trabeculoplasty by laser surgery, one or more sessions	34.3	89.2	0.39%	37.54%	22.8	76.1	2.35%	49.42%
66170	Fistulization of sclera for glaucoma trabeculectomy AB externo	25.0	28.9	0.13%	5.01%	22.2	25.4	0.79%	4.66%
66820	Discission of secondary membraneous cataract ('after cataract') and/or anterior hyaloid incisional technique (ziegler or wheeler knife)	72.1	15.9	0.07%	-39.65%	25.6	6.4	0.20%	-36.92%
66821	Discission of secondary membraneous cataract ('after cataract') and/or anterior hyaloid, laser surgery (one or more stages)	9.0	366.3	1.58%	243.86%	4.3	188.0	5.81%	251.78%
66920	Extraction of lens with or without iridectomy intracapsular, with or without enzymes	21.1	2.7	0.01%	-49.53%	25.9	2.6	0.08%	-53.44%

Table A.9 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Ophthalmology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
66940	Extraction of lens with or without iridectomy extracapsular	18.8	5.1	0.02%	-35.30%	$22.5	$4.9	0.15%	-39.82%
66983	Intracapsular cataract extraction with insertion of intraocular lens prosthesis (one-stage procedure)	205.5	36.0	0.16%	-44.06%	333.5	57.2	1.77%	-44.42%
66984	Extracapsular cataract removal with insertion of intraocular lens prosthesis (one-stage procedure)	409.0	945.1	4.08%	32.20%	698.6	1,504.8	46.51%	29.15%
66985	Insertion of intraocular lens subsequent to cataract removal (separate procedure)	36.8	34.3	0.15%	-2.30%	37.8	34.2	1.06%	-3.22%
67210	Destruction of localized lesion of retina (eg, Maculopathy, choroidopathy, small tumors), one or more sessions photocoagulation (laser or xenon arc)	17.7	51.1	0.22%	42.55%	10.1	39.2	1.21%	56.88%
67228	Destruction of extensive or progressive retinopathy (eg, diabetic retinopathy), one or more sessions, photocoagulation (laser or xenon arc)	66.3	111.9	0.48%	19.05%	43.8	87.9	2.72%	26.14%
76516	Ophthalmic biometry by ultrasound echography, A-mode	511.6	481.4	2.08%	-2.01%	64.7	47.1	1.45%	-10.05%
76519	Ophthalmic biometry by ultrasound echography, A-mode with intraocular lens power calculation	19.3	421.5	1.82%	179.43%	2.2	40.6	1.25%	166.18%
	Other Ophthalmology Procedures	8,043.6	9,188.0	39.70%	4.53%	585.0	678.1	20.96%	5.05%
	All Ophthalmology Procedures	16,746.6	23,146.1	100.00%	11.39%	2,138.6	3,235.4	100.00%	14.80%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Ophthalmology in any year between 1985 and 1988.
Note (2): Many of the charges in this table reflect changes in technology or in CPT-4 codes. The development of the extracapsular cataract removal technique (66984) resulted in the substitution of this procedure for several others, eg. 66920 ,66940, 66983 and 66985. The development of the laser surgery procedure for removal of secondary cataracts (66821) led to a substitution of this procedure for the incisional technique (66820). Finally, a new ophthalmic biometry procedure (76519) partially substituted for an existing procedure (76516).

Table A.10
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Orthopedic Surgery

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
90020	Office medical service, new patient, comprehensive service	205.3	249.1	2.04%	6.65%	$8.6	$13.2	1.00%	15.29%
90050	Office medical service, established patient limited service	895.6	1,075.1	8.79%	6.28%	17.4	23.6	1.80%	10.71%
90060	Office medical service, established patient, intermediate service	713.3	1,047.5	8.57%	13.67%	16.6	28.8	2.20%	20.02%
90620	Initial consultation, comprehensive	112.0	135.5	1.11%	6.57%	8.1	11.3	0.86%	11.79%
20610	Arthrocentesis, aspiration and/or injection major joint or bursa (eg, shoulder, hip, knee joint, subacrominial bursa)	358.2	480.0	3.92%	10.25%	10.0	14.9	1.14%	14.25%
27125	Hemiarthroplasty of hip (partial hip replacement) prosthesis (eg, Austin-Moore bipolar arthroplasty)	11.8	20.3	0.17%	19.77%	16.9	33.4	2.55%	25.46%
27130	Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip replacement) simple	47.0	58.6	0.48%	7.65%	116.2	154.4	11.78%	9.92%
27131	Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip replacement), complex	9.7	0.1	0.00%	-81.97%	24.2	0.2	0.01%	-81.38%
27132	Conversion of previous hip surgery to total hip replacement	0.0	4.7	0.04%		0.0	13.3	1.01%	
27134	Revision of total hip arthroplasty, both components	0.0	7.0	0.06%		0.0	23.1	1.77%	
27135	Secondary reconstruction or revision of arthroplasty, any type	6.0	0.0	0.00%	-90.60%	14.7	0.0	0.00%	-90.33%
27235	Treatment of closed or open femoral fracture, proximal end, neck, in situ pinning of undisplaced or impacted fracture	10.1	8.9	0.07%	-3.97%	12.1	11.4	0.87%	-2.12%
27236	Open treatment of closed or open femoral fracture, proximal end, neck, internal fixation or prosthetic replacement	54.2	49.4	0.40%	-3.04%	66.5	65.2	4.98%	-0.65%
27244	Open treatment of closed or open intertrochanteric, pertrochanteric, or subtrochanteric femoral fracture, with internal fixation	72.9	82.4	0.67%	4.19%	86.0	105.3	8.04%	6.98%
27447	Arthroplasty, knee, condyle and plateau, medial and lateral compartments with or without patella resurfacing (total knee replacement)	42.2	66.9	0.55%	16.66%	99.6	165.8	12.66%	18.51%
29881	Arthroscopy, knee, surgical, for infection, lavage and drainage with meniscectomy (medial or lateral including any meniscal shaving)	8.5	24.0	0.20%	41.50%	7.7	24.7	1.88%	47.66%
64721	Neuroplasty and/or transposition median nerve at carpal tunnel	23.8	33.4	0.27%	11.88%	10.9	15.9	1.22%	13.33%
73510	Radiologic examination, hip complete, minimum of two views	279.0	369.0	3.02%	9.77%	10.2	15.2	1.16%	14.20%

Table A.10 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Orthopedic Surgery

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
73560	Radiological examination, knee, anteroposterior and lateral views	291.7	369.2	3.02%	8.18%	$8.0	$11.5	0.88%	12.71%
	Other Orthopedic Surgery Procedures	7,001.1	8,147.3	66.63%	5.18%	445.7	578.7	44.18%	9.09%
	All Orthopedic Surgery Procedures	10,142.3	12,228.6	100.00%	6.43%	979.5	1,309.8	100.00%	10.17%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Orthopedic Surgery in any year between 1985 and 1988.
Note (2): Several changes were made to hip replacement codes during this period. Specifically, the 1987 edition of CPT-4 eliminated 27131 and directed physicians to use 27132. In addition, procedure 27135 was eliminated and physicians were directed to use 27134, 27137 or 27138.

Table A.11
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Thoracic Surgery

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
90620	Initial consultation, comprehensive	89.1	111.5	5.09%	7.77%	$7.0	$9.8	1.17%	12.21%
32480	Lobectomy, total or segmental	7.4	8.3	0.38%	3.92%	12.7	15.6	1.86%	7.03%
33206	Insertion of permanent pacemaker with transvenous electrode(s), atrial	7.9	4.1	0.19%	-19.43%	8.6	4.5	0.54%	-19.18%
33207	Insertion of permanent pacemaker with ventricular	11.5	14.6	0.67%	8.27%	12.4	17.3	2.05%	11.49%
33405	Replacement, aortic valve, with cardiopulmonary bypass	5.6	8.4	0.39%	14.96%	16.9	27.5	3.27%	17.56%
33430	Replacement, mitral valve, with cardiopulmonary bypass	3.5	4.6	0.21%	9.18%	10.8	14.8	1.75%	11.03%
33510	Coronary artery bypass, autogenous graft, (eg, saphenous vein or internal mammary artery single graft	3.8	5.2	0.24%	10.51%	10.4	15.5	1.84%	14.45%
33511	Coronary artery bypass, autogenous graft, (eg, saphenous vein or internal mammary artery) two coronary arteries	8.9	13.5	0.62%	14.78%	33.9	54.5	6.47%	17.13%
33512	Coronary artery bypass, autogenous graft, (eg, saphenous vein or internal mammary artery) three coronary arteries	17.5	28.3	1.29%	17.30%	74.7	127.9	15.18%	19.64%
33513	Coronary artery bypass, autogenous graft, (eg, saphenous vein or internal mammary artery) four coronary arteries	15.0	23.6	1.08%	16.49%	66.3	113.3	13.46%	19.58%
33514	Coronary artery bypass, autogenous graft, (eg, saphenous vein or internal mammary artery) five coronary grafts	6.3	9.2	0.42%	13.80%	29.1	46.3	5.50%	16.80%
33516	Coronary artery bypass, autogenous graft, (eg, saphenous vein or internal mammary artery) six or more coronary grafts	2.2	2.7	0.13%	7.60%	10.5	14.3	1.69%	10.79%
35081	Direct repair of aneurysm or excision (partial or total) and graft insertion, with or without patch for aneurysm or occlusive disease, abdominal aorta	5.1	5.7	0.26%	4.22%	12.6	15.5	1.84%	7.35%
35301	Thromboendarterectomy, with or without patch graft, carotid, vertebral, subclavian, by neck incision	18.5	15.8	0.72%	-5.04%	30.6	29.0	3.45%	-1.71%
35556	Bypass graft, with vein femoral-popliteal	4.7	3.8	0.17%	-6.58%	8.2	7.4	0.88%	-3.34%
35656	Bypass graft, with other than vein femoral-popliteal	3.6	4.8	0.22%	10.39%	6.1	9.0	1.06%	13.64%
93870	Non-invasive studies of carotid arteries, imaging (eg, flow imaging by ultrasonic arteriography, high resolution B-scan with or without pulsed doppler flow evaluation, doppler flow or duplex scan with spectrum analysis)	29.2	63.6	2.91%	29.61%	3.6	8.5	1.01%	33.70%

Table A.11 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Thoracic Surgery

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
	Other Thoracic Surgery Procedures	1,611.2	1,860.7	85.01%	4.92%	$234.2	$311.4	36.97%	9.95%
	All Thoracic Surgery Procedures	1,850.9	2,188.7	100.00%	5.75%	588.5	842.1	100.00%	12.69%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for Thoracic Surgery in any year between 1985 and 1988.

Table A.12
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Urology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90040	Office medical service, established patient, brief service	455.3	511.1	3.73%	3.93%	$7.0	$8.7	0.96%	7.19%
90050	Office medical service, established patient, limited service	925.0	1,090.2	7.96%	5.63%	16.8	22.2	2.47%	9.87%
90060	Office medical service, established patient, intermediate service	810.5	1,196.6	8.74%	13.87%	17.3	29.8	3.31%	20.03%
90620	Initial consultation, comprehensive	171.2	214.2	1.56%	7.75%	12.2	18.0	2.00%	13.85%
50230	Nephrectomy, including partial ureterectomy, any approach including rib resection radical, with regional lymphadenectomy	4.3	6.0	0.04%	11.68%	6.4	10.1	1.13%	16.52%
50590	Lithotripsy, extracorporeal shock wave	1.2	17.8	0.13%	148.36%	1.1	16.8	1.87%	147.20%
52000	Cystourethroscopy (separate procedure)	411.9	570.4	4.17%	11.46%	37.5	63.6	7.07%	19.28%
52005	Cystourethroscopy, with urethral catheterization, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service	55.8	79.2	0.58%	12.35%	8.1	13.8	1.53%	19.29%
52235	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of medium bladder tumor(s)	19.4	21.1	0.15%	2.93%	11.8	14.2	1.58%	6.37%
52240	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of, large bladder tumor(s)	18.1	19.6	0.14%	2.69%	13.9	17.6	1.96%	8.23%
52281	Cystourethroscopy, with calibration and/or dilation of urethral stricture or stenosis, with or without meatotomy and injection procedure for cystography, male or female	47.5	93.5	0.68%	25.30%	7.9	18.0	2.00%	31.81%
52500	Transurethral resection of bladder neck (separate procedure)	14.4	9.4	0.07%	-13.13%	9.2	6.2	0.68%	-12.60%
52601	Transurethral resection of prostate, including control of postoperative bleeding, complete (vasectomy, meatotomy, cystourethroscopy, urethral calibration and/or dilation, and internal urethrotomy are included)	207.3	215.5	1.57%	1.30%	218.0	243.1	27.00%	3.70%
54521	Orchiectomy, simple (including subcapsular), with or without testicular prosthesis, scrotal or inguinal approach bilateral	17.5	24.9	0.18%	12.53%	6.9	11.2	1.25%	17.44%
55700	Biopsy, prostate needle or punch, single or multiple any approach	50.3	97.2	0.71%	24.55%	4.8	11.3	1.26%	33.23%

Table A.12 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Urology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
55821	Prostatectomy (including control of postoperative bleeding, vasectomy, meatotomy, urethral calibration and/or dilation, and internal urethrotomy) suprapubic, subtotal, one or two stages	8.6	5.1	0.04%	-16.17%	$8.3	$6.5	0.72%	-7.79%
55845	Prostatectomy, retropubic radical with bilateral pelvic lymphadenectomy, including external iliac, hypogastric and obturator nodes	2.5	6.5	0.05%	37.92%	4.7	15.0	1.66%	47.24%
81000	Urinalysis, with microscopy	2,341.3	3,050.2	22.28%	9.22%	12.0	14.7	1.64%	6.97%
	Other Urology Tests	5,326.2	6,462.7	47.20%	6.66%	279.3	359.5	39.92%	8.77%
	All Urology Tests	10,888.3	13,691.2	100.00%	7.93%	683.2	900.5	100.00%	9.64%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for Urology in any year between 1985 and 1988.

Table A.13
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Dermatology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
90015	Office medical service, new patient, intermediate service	156.6	230.4	1.77%	13.74%	$5.1	$8.5	1.92%	18.51%
90040	Office medical service, established patient, brief service	272.8	261.3	2.01%	-1.43%	4.7	4.9	1.12%	2.00%
90050	Office medical service, established patient, limited service	719.3	885.6	6.82%	7.18%	14.3	19.7	4.46%	11.36%
90060	Office medical service, established patient, intermediate service	721.8	1,065.1	8.20%	13.85%	16.6	29.1	6.57%	20.49%
11100	Biopsy of skin, subcutaneous tissue and/or mucous membrane (including simple closure), unless otherwise listed (separate procedure), one lesion	379.2	516.2	3.98%	10.83%	14.5	22.4	5.06%	15.66%
11441	Excision, other benign lesion (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; lesion diameter 0.6 to 1.0 cm	104.8	121.7	0.94%	5.12%	5.1	1.6	0.37%	-31.50%
11442	Excision, other benign lesion (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane lesion diameter 1.1 to 2.0 cm	66.7	67.8	0.52%	0.54%	4.4	5.3	1.21%	6.92%
11602	Excision, malignant lesion, trunk, arms, or legs; lesion diameter 1.1 to 2.0 cm	41.7	54.3	0.42%	9.19%	5.4	7.9	1.79%	13.33%
11640	Excision, malignant lesion, face, ears, eyelids, nose, lips; lesion diameter 0.5 cm or less	53.5	59.8	0.46%	3.81%	6.3	7.8	1.77%	7.64%
11641	Excision, malignant lesion, face, ears, eyelids, nose, lips, lesion diameter 0.5 to 1.0 cm	93.0	111.6	0.86%	6.27%	13.3	18.3	4.14%	11.28%
11642	Excision, malignant lesion, face, ears, eyelids, nose, lips; lesion diameter 1.0 to 2.0 cm	90.8	107.7	0.83%	5.86%	16.6	22.0	4.98%	9.85%
17000	Destruction by any method, with or without surgical curettement, all facial lesions or premalignant lesions in any location, including local anesthesia, one lesion	746.2	1,244.8	9.59%	18.60%	23.0	41.9	9.45%	22.01%
17001	Destruction by any method, with or without surgical curettement, all facial lesions or premalignant lesions in any location, including local anesthesia, second and third lesions, each	510.6	1,145.8	8.83%	30.92%	8.2	18.0	4.07%	30.31%
17002	Destruction by any method, with or without surgical curettement, all facial lesions or premalignant lesions in any location, including local anesthesia, over three lesions, each additional lesion	561.2	1,276.2	9.83%	31.50%	4.9	10.3	2.33%	28.57%

Table A.13 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Dermatology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
17100	Destruction by any method of benign skin lesions on any area other than the face, including local anesthesia	369.7	470.9	3.63%	8.40%	$8.9	$12.9	2.91%	13.24%
17304	Chemosurgery (Mohs' Technique), first stage, fresh tissue technique, including the removal of all gross tumor and delineation of margins by means of up to five horizontal, microscopic specimens	8.5	21.2	0.16%	35.38%	2.1	6.4	1.44%	45.73%
88304	Surgical pathology, gross and microscopic examination of presumptively abnormal tissue(s), uncomplicated specimen	420.1	585.8	4.51%	11.72%	12.7	19.2	4.33%	14.77%
	Other Dermatology Procedures	3,939.1	4,756.2	36.64%	6.49%	131.9	186.4	42.09%	12.24%
	All Dermatology Procedures	9,255.6	12,982.4	100.00%	11.94%	297.9	443.0	100.00%	14.14%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for Dermatology in any year between 1985 and 1988.

Table A.14
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Other Surgical Specialty

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
90015	Office medical service, new patient, intermediate service	285.0	345.3	2.75%	6.62%	$9.1	$12.3	1.35%	10.49%
90020	Office medical service, new patient, comprehensive service	362.1	483.5	3.85%	10.12%	14.1	22.5	2.47%	16.71%
90050	Office medical service, established patient, limited service	1,075.2	1,117.1	8.89%	1.28%	21.3	24.5	2.69%	4.77%
90060	Office medical service, established patient, intermediate service	1,050.5	1,445.7	11.51%	11.23%	24.4	38.6	4.24%	16.58%
90070	Office medical service, established patient, extended service	333.1	464.1	3.70%	11.70%	9.3	15.4	1.70%	18.30%
90080	Office medical service, established patient, comprehensive service	253.7	344.5	2.74%	10.73%	8.8	13.7	1.50%	15.99%
90620	Initial consultation, comprehensive	191.9	228.0	1.82%	5.93%	14.0	19.2	2.10%	11.01%
31575	Laryngoscopy, flexible fiberoptic, diagnostic	28.8	78.5	0.63%	39.65%	3.0	9.7	1.07%	47.72%
58120	Dilation and curettage, diagnostic and/or therapeutic (Nonobstetrical)	38.3	44.2	0.35%	4.89%	9.8	11.5	1.26%	5.62%
58150	Total hysterectomy (corpus and cervix), with or without removal of tube(s), with or without removal of ovary(s)	20.6	22.7	0.18%	3.34%	20.8	24.7	2.71%	5.90%
58265	Vaginal Hysterectomy	10.6	12.2	0.10%	4.84%	11.1	14.0	1.54%	7.97%
61312	Craniectomy or craniotomy for evacuation of hematoma, supratentorial, extradural or subdural	0.0	5.0	0.04%		0.0	10.9	1.19%	
63030	Laminotomy (Hemilaminectomy), for decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disk; one interspace, lumbar, unilateral	5.9	8.5	0.07%	12.88%	7.5	12.6	1.38%	18.65%
66984	Extracapsular cataract removal with insertion of intraocular lens prosthesis (one stage procedure), manual or phacoemulsification technique	3.5	7.3	0.06%	27.98%	6.4	12.2	1.34%	23.97%
92557	Basic comprehensive audiometry (92553 & 92556 combined), (Pure tone, air and bone, and speech, threshold and discrimination)	244.6	319.3	2.54%	9.29%	9.1	13.2	1.45%	13.02%
	Surgical Specialty Procedures–other	6,526.3	7,634.3	60.78%	5.37%	504.8	655.9	72.01%	9.12%
	All Surgical Specialty Procedures–other	10,429.9	12,560.2	100.00%	6.39%	673.6	910.8	100.00%	10.58%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Surgical Specialty in any year between 1985 and 1988.
Note (2): Other surgical specialties include otolaryngologists, neurosurgeons, obstetrician-gyneocologists, plastic surgeons, hand surgeons, proctologists and all related osteopathic surgeons.

Table A.15
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Multi-Specialty Clinics

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
90040	Office medical service, established patient, brief service	1,230.2	1,024.5	2.40%	-5.92%	$18.5	$17.0	1.05%	-2.92%
90050	Office medical service, established patient, limited service	2,773.8	3,229.0	7.55%	5.20%	52.0	71.9	4.45%	11.37%
90060	Office medical service, established patient, intermediate service	1,763.2	2,276.2	5.32%	8.88%	40.6	63.9	3.96%	16.31%
90070	Office medical service, established patient, extended service	319.4	404.7	0.95%	8.21%	9.7	15.6	0.97%	17.11%
90220	Initial hospital care, comprehensive history and examination, initiation of diagnostic and treatment programs, and preparation of hospital records	338.4	331.7	0.78%	-0.67%	22.8	26.1	1.62%	4.60%
90250	Subsequent hospital care, each day, limited service	1,695.4	1,670.3	3.91%	-0.50%	37.2	45.7	2.83%	7.14%
90260	Subsequent hospital care, each day, intermediate service	1,188.6	1,511.1	3.53%	8.33%	35.5	48.1	2.98%	10.63%
90515	Emergency department service, new patient, intermediate service	628.5	824.7	1.93%	9.48%	24.1	35.8	2.22%	14.03%
90517	Emergency department service, new patient, extended service	357.5	493.3	1.15%	11.33%	16.5	30.0	1.86%	22.14%
90520	Emergency department service, new patient, comprehensive service	0.0	282.0	0.66%		0.0	19.9	1.23%	
90620	Initial consultation, comprehensive	201.6	250.8	0.59%	7.55%	16.0	23.8	1.47%	14.15%
66984	Extracapsular cataract removal with insertion of intraocular lens prosthesis (one stage procedure), manual or phacoemulsification technique	7.6	16.8	0.04%	30.42%	12.0	25.9	1.61%	29.23%
71020	Radiologic examination, chest, two views, frontal and lateral	791.6	1,210.0	2.83%	15.19%	17.8	29.9	1.85%	18.88%
93000	Electrocardiogram, routine ECG with at least 12 leads with interpretation and report	628.9	589.4	1.38%	-2.14%	16.1	22.1	1.37%	11.02%
93010	Electrocardiogram, routine ECG with at least 12 leads interpretation and report only	2,329.9	3,153.7	7.38%	10.62%	22.5	38.6	2.40%	19.79%
	Other Multi-specialty group practice	19,969.8	25,492.8	59.62%	8.48%	738.0	1,098.8	68.12%	14.19%
	All Multi-specialty group practice	34,224.5	42,760.9	100.00%	7.71%	1,079.4	1,613.1	100.00%	14.33%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for Multi-Specialty Clinics in any year between 1985 and 1988.

Table A.16
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Radiology

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
71010	Radiologic examination, chest, single view, frontal	8,286.0	9,937.8	18.00%	6.25%	$87.6	$118.9	5.03%	10.74%
71020	Radiologic examination, chest, two views, frontal and lateral	9,153.0	10,614.3	19.22%	5.06%	146.0	188.4	7.97%	8.89%
74240	Radiologic examination, gastrointestinal tract; upper, with or without delayed films, without KUB	672.3	527.2	0.95%	-7.79%	25.1	21.7	0.92%	-4.71%
74270	Radiologic examination, colon, barium enema	921.2	735.0	1.33%	-7.25%	34.4	30.1	1.27%	-4.33%
76091	Mammography, bilateral	598.8	1,735.2	3.14%	42.57%	26.7	88.4	3.74%	49.09%
78306	Bone imaging, whole body	455.4	278.0	0.50%	-15.17%	32.3	51.0	2.15%	16.39%
70450	Computerized axial tomography, head or brain w/o contrast material	541.7	861.1	1.56%	16.71%	43.8	86.2	3.64%	25.29%
70460	Computerized axial tomography, head or brain with contrast material(s)	271.5	187.0	0.34%	-11.69%	25.5	22.3	0.94%	-4.35%
70470	Computerized axial tomography, head or brain w/o contrast material, followed by contrast material(s) and further sections	594.2	639.2	1.16%	2.46%	60.2	86.0	3.64%	12.65%
71260	Computerized axial tomography, lumbar spine with contrast material	111.3	200.9	0.36%	21.77%	12.6	28.1	1.19%	30.48%
72131	Computerized axial tomography, lumbar spine without contrast material	118.7	203.6	0.37%	19.71%	12.9	29.3	1.24%	31.36%
74160	Computerized axial tomography, abdomen with contrast material	302.2	508.0	0.92%	18.91%	33.0	69.6	2.94%	28.31%
74170	Computerized axial tomography, abdomen w/o contrast material, followed by contrast material(s) and further sections	170.3	278.0	0.50%	17.76%	21.6	42.8	1.81%	25.59%
70551	Magnetic resonance (EG, proton) imaging, orbit, face and neck	7.8	176.7	0.32%	182.94%	0.2	57.4	2.43%	518.71%
76700	Echography, abdominal, B-scan and/or real time with image documentation, complete	630.4	748.0	1.35%	5.87%	36.6	51.8	2.19%	12.24%
77400	Daily megavoltage treatment management, simple	1,008.5	716.3	1.30%	-10.77%	29.4	26.5	1.12%	-3.34%
77405	Daily megavoltage treatment management, intermediate	1,390.3	1,154.3	2.09%	-6.01%	52.3	57.1	2.41%	2.98%
77410	Daily megavoltage treatment management, complex	1,015.2	1,269.9	2.30%	7.75%	47.0	81.3	3.44%	20.05%
	Other Radiology Procedures	24,811.3	24,442.8	44.27%	-0.50%	861.2	1,228.5	51.93%	12.57%
	All Radiology Procedures	51,060.0	55,213.5	100.00%	2.64%	1,588.3	2,365.5	100.00%	14.20%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note: The Table includes all procedures which accounted for at least 1.5% of allowed charges for Radiology in any year between 1985 and 1988.

Table A.17
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Pathology/Laboratory

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
36415	Routine venipuncture for collection of specimen(s)	1,337.2	7,802.4	7.92%	80.03%	$4.0	$23.5	1.85%	80.00%
80018	Automated multichannel test, 17-18 clinical chemistry test	643.4	664.5	0.67%	1.08%	10.6	9.8	0.77%	-2.62%
80019	Automated multichannel test, 19 or more clinical chemistry tests	8,292.2	10,398.9	10.55%	7.84%	82.1	122.1	9.63%	14.14%
80500	Clinical pathology consultation, limited, without review of patient's history and medical records	267.0	784.8	0.80%	43.24%	5.6	18.0	1.42%	47.57%
81000	Urinalysis, with microscopy	2,262.2	2,895.2	2.94%	8.57%	11.6	14.1	1.11%	6.80%
82643	Digoxin, RIA	906.7	1,363.9	1.38%	14.58%	18.2	27.5	2.17%	14.67%
82947	Glucose, except urine (eg, blood, spinal fluid, joint fluid)	2,305.4	2,261.2	2.30%	-0.64%	13.2	12.8	1.01%	-1.07%
83718	Lipoprotein high density cholesterol (HDL cholesterol) by precipitation method	472.9	2,533.4	2.57%	74.97%	5.1	28.5	2.24%	77.18%
83720	Lipoprotein cholesterol fractionation calculation by formula	22.5	1,801.3	1.83%	330.81%	0.3	30.1	2.37%	345.62%
84436	Thyroxine, true (TT-4), RIA	1,358.9	1,363.9	1.38%	0.12%	14.1	24.3	1.92%	20.01%
84443	Thyroid stimulating hormone (TSH), RIA or EIA	438.6	1,160.9	1.18%	38.33%	10.6	29.2	2.30%	40.34%
85025	Blood count, hemogram and platelet count, automated, and automated complete differential WBC count (CBC)	0.0	3,893.3	3.95%		0.0	45.0	3.55%	
85022	Blood count, hemogram, automated and differential WBC count (CBC)	2,581.0	1,990.0	2.02%	-8.30%	21.3	16.6	1.31%	-8.02%
85028	Blood count	1,013.2	1.9	0.00%	-87.75%	10.8	0.02	0.00%	-87.40%
88302	Surgical pathology, gross and microscopic examination of presumptively abnormal tissue(s), for identification and record purposes	591.0	454.3	0.46%	-8.39%	14.8	12.8	1.01%	-4.88%
88304	Surgical pathology, gross and microscopic examination of presumptively abnormal tissue(s), uncomplicated specimen	1,448.1	2,086.3	2.12%	12.94%	44.7	77.2	6.08%	19.98%
88305	Surgical pathology, gross and microscopic examination of presumptively abnormal tissue(s), single complicated or multiple uncomplicated specimen(s), without complex dissection	922.1	1,490.6	1.51%	17.36%	43.6	89.9	7.08%	27.28
88307	Surgical pathology, gross and microscopic examination of presumptively abnormal tissue(s), single complicated specimen requiring complex dissection or multiple complicated specimens	308.6	467.0	0.47%	14.81%	20.3	39.3	3.09%	24.60

Table A.17 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985–1988
Pathology/Laboratory

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services (in thousands)	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges (in millions)	% of 1988 Total Allowed Charges	Average Annual Growth
88309	Surgical pathology, gross and microscopic examination of presumptively abnormal tissue(s), complex diagnostic problem with or without extensive dissection	171.2	250.3	0.25%	13.50%	$15.1	$28.6	2.26%	23.86%
88331	Consultation during surgery, with frozen sections(s), single specimen	230.0	322.5	0.33%	11.92%	11.5	21.2	1.67%	22.38%
	Other Pathology/Laboratory Tests	37,942.2	54,539.5	55.36%	12.86%	421.5	598.6	47.17%	12.41%
	All Pathology/Laboratory Tests	63,514.6	98,525.9	100.00%	15.76%	779.1	1,269.0	100.00%	17.66%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Pathology/Laboratory in any year between 1985 and 1988.
Note (2): The 1987 editing CPT-4 eliminated code 85028 and directed physicians to use codes 85023–85025. This explains the major changes in use of these codes. There was also a substantial change in the description of procedure 85022, which may explain the reduction in its use.

Table A.18
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Other Non-Physicians

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
90050	Office medical service, established patient, limited service	930.5	838.5	2.91%	-3.41%	$17.2	$18.7	2.24%	2.86%
90060	Office medical service, established patient, intermediate service	342.6	628.6	2.18%	22.43%	7.5	16.4	1.97%	29.99%
A2000	Manipulation of spine by chiropractor	7,085.6	7,628.6	26.50%	2.49%	104.4	135.2	16.19%	8.99%
92004	Ophthalmological services: medical examination and evaluation, with initiation of diagnostic and treatment program, comprehensive, established patient, one or more visits	22.6	364.4	1.27%	152.49%	0.7	13.1	1.57%	161.51%
92012	Opthalmological services: medical examination and evaluation, with initiation or continuation of diagnostic and treatment program, intermediate, established patient	59.9	492.2	1.71%	101.82%	1.5	14.2	1.70%	112.07%
92014	Opthalmological services: medical examination and evaluation, with initiation or continuation of diagnostic and treatment program, comprensive, established patient, one or more visits	37.4	691.7	2.40%	164.55%	1.2	23.6	2.83%	173.28%
V2020	Frames, purchases	70.9	307.5	1.07%	63.04%	2.8	13.1	1.57%	66.31%
10060	Incision and drainage of abscess (eg, carbuncle, suppurative hidradenitis, and other cutaneous or subcutaneous abscesses), simple	266.9	294.9	1.02%	3.38%	7.9	9.5	1.14%	6.58%
10100	Incision and drainage of onychia or paronychia, single or simple	279.0	359.6	1.25%	8.82%	8.0	11.9	1.42%	14.18%
11000	Debridement of extensive eczematous or infected skin up to 10% of body surface	307.3	428.2	1.49%	11.69%	7.2	12.3	1.47%	19.46%
11700	Debridement of nails, manual five or less	678.6	1,154.4	4.01%	19.38%	13.1	26.0	3.12%	25.89%
11710	Debridement of nails, electric grinder five or less	663.6	819.4	2.85%	7.28%	14.0	18.3	2.19%	9.42%
11730	Avulsion of nail plate, partial or complete, simple single	565.8	733.9	2.55%	9.06%	15.9	23.5	2.81%	13.81%
11750	Excision of nail and nail matrix, partial or complete (eg, ingrown or deformed nail) for permanent removal	142.6	185.5	0.64%	9.18%	19.4	29.0	3.48%	14.44%
28285	Hammertoe Operation, one toe (eg, interphalangeal fusion, filleting, phalangectomy) (separate procedure)	36.6	49.7	0.17%	10.82%	10.0	13.7	1.64%	11.05%
28292	Hallux valgus (Bunion) correction, with or without sesamoidectomy keller, McBride or Mayo type procedure	15.3	17.1	0.06%	3.84%	8.5	10.6	1.27%	7.79%
A9160	Non-covered service by podiatrist	566.1	560.3	1.95%	-0.35%	11.9	13.0	1.56%	3.01%

Table A.18 (Continued)
Growth in Services and Allowed Charges for Individual Procedures, by Specialty, 1985-1988
Other Non-Physicians

HCPCS	Description	1985 Total Allowed Services (in thousands)	1988 Total Allowed Services	% of 1988 Total Allowed Services	Average Annual Growth	1985 Total Allowed Charges (in millions)	1988 Total Allowed Charges	% of 1988 Total Allowed Charges	Average Annual Growth
71010	Radiologic examination, chest, single view frontal	175.8	309.2	1.07%	20.71%	$6.5	$12.0	1.44%	22.73%
73620	Radiological examination, foot	376.1	408.7	1.42%	2.81%	10.0	12.4	1.48%	7.25%
R0070	Transportation of portable x-ray equipment and personnel to home or nursing home, per trip to facility or location, one patient seen	267.5	396.5	1.38%	14.02%	14.0	25.1	3.00%	21.48%
	Non-Physician Procedures-other	8,238.6	12,122.8	42.11%	13.74%	237.2	383.3	45.90%	17.36%
	All Non-Physician Procedures-other	21,129.1	28,791.8	100.00%	10.87%	518.8	835.1	100.00%	17.20%

Source: Tabulations from the 1985 and 1988 BMAD Procedure Files.
Note (1): The Table includes all procedures which accounted for at least 1.5% of allowed charges for Non-physicians in any year between 1985 and 1988.
Note (2): Non-physicians consist of chiropractors, optometrists, podiatrists, oral surgeons and portable x-ray suppliers.
Note (3): The large increases in ophthalmological services reflect the expansion of optometrist services in the 1986 OBRA legislation which were effective April 1, 1987.